

# SKIN DIVER

MAGAZINE

50c

November  
1961  
ACMR



Captain  
Jacques-Yves Cousteau  
"MANFISH"

Enjoy spear fishing at its best with a powerful, deadly accurate Nemrod pneumatic gun by Seamless. The remarkable feature of Nemrod guns is their power source . . . air (not CO<sub>2</sub>). Load your gun by pumping and the charge lasts all season long without trouble, expense or diminished velocity. Choose from ten pneumatic and rubber powered models, including the new Torpedero, a remarkable value in pneumatic guns at only \$19.95.

*Nemrod*® Guns by **SEAMLESS**

ATHLETIC DIVISION, UNDERWATER EQUIPMENT, THE SEAMLESS RUBBER COMPANY, NEW HAVEN 3, CONNECTICUT  
A Subsidiary of the Rexall Drug and Chemical Company



**GET'EM**







The World's Champion Spearfishermen Choose and Use

*Nemrod*<sup>®</sup>

Equipment

Stolen from Research Library  
• PETERSEN PUBLISHING CO. •



Nemrod trophy for highest individual score  
awarded to Juan Gomez of Spanish Team.

At the International Spearfishing Tournament held Almeria, Spain, August 16-20, 1961, World's Champion Spanish Team used NEMROD equipment exclusively.

Teams representing the following countries used NEMROD equipment exclusively: Brazil, England, Finland, Spain, Sweden and Turkey.

NEMROD equipment was also used by teams representing: France, Portugal, U.S.A. and Yugoslavia.

You can choose the same NEMROD equipment that champions use. See the full NEMROD line at your sporting goods dealer soon.

*Nemrod*<sup>®</sup> Underwater Equipment by **SEAMLESS**

UNDERWATER EQUIPMENT • ATHLETIC GOODS DIVISION • THE SEAMLESS RUBBER COMPANY, NEW HAVEN 3, CONNECTICUT • A Subsidiary of the Rexall Drug and Chemical Company

# HOW LONG SHOULD A SKIN-DIVER STAY AT 105 FEET



Super KonTiki knows. Shows when time's up. Move outer rim till triangle points to minute hand. When hand moves to 105 (or chosen depth) you must surface to avoid injury, regardless of oxygen. Calibrated to international standards. Waterproof (providing case, crown, crystal intact). Won't leak under 650-ft. pressure! Luminous dial. Self-winding, on unique Eterna-Matic ball-bearing rotor, most advanced system known. Stainless, \$150. For free booklet write: Eterna, 404 Park Ave. So., N. Y. 16.

**ETERNA::MATIC**  
Super KonTiki



## Reader's Ripples

... As both a skin diver and a surf fisherman, I feel I can help clear up some of the mutual misunderstanding which exists between these two factors. A surf fisherman, or for that matter any fisherman, depends on wiles, cunning, and a little bit of luck and a lot of patience to bring in his prey. A skin diver, on the other hand, depends mainly on his swimming skills. Of course he must know what fish are where, how to spear them and what to spear them with, but if he doesn't have a strong pair of legs he usually comes home empty handed.

It's anyone's guess which of the two are more sporting. The skin divers claim they are giving the fish a fair shake by chasing them in their own element, which is unnatural and foreign to the hunter. The divers also claim the fishermen are high, dry and comfortable. No surf fisherman worth his rusty hooked plug can swallow the last charge but he will also vow that he is far more sporting than the skin diver.

"The bubble boys pit two hundred pounds of human against five pounds of fish and brag about it for days."

What happens when a surf caster brings in a two pound striper goes unsaid. As for me, I'll cast in the spring, dive in the summer and cast in the fall and spend the winter reading about both. The rest of you can fight it out with your spears and hooks.

I'm goin' fishin'.

Allan Ryan, Jr.  
151 Oakleigh Rd.  
Newton 58, Mass.

I am being posted to Egypt this fall with the UN forces and would like to get in touch with any skin divers along the Mediterranean.

G. G. Sasseville  
Box 837  
Wainwright, Alberta  
Canada

... The Wheelus Skin Divers Club at Wheelus Air Base, Tripoli, Libya, has compressed air available to visiting divers. Fee ... no charge.

James S. Stone  
15828 Sherman Way  
Van Nuys, Calif.

... I will greatly appreciate a list of good local diving spots from divers in the tri-state area including Ohio, Kentucky, and West Virginia. I am compiling this list for our club, the Tri-State Skin Divers.

Allen C. Haney  
2310 Harvey Rd.  
Huntington, W. Va.

... I wish to express my congratulations upon the publication of Mr. Ramsey Parks' story on "Skindivingmanship" which appeared in your August edition. Although this was a humorous article, the prevalence of this type "diver" is everywhere. In our area we are unfortunate to have a multitude of these characters.

Rick Dayton  
Tampa, Florida



... Enclosed is a picture of a 580 pound Jewfish taken by Bobby Simms from Port Arthur, Texas, and myself, Carl Neukirch from Beaumont, Texas. Bobby is a member of the Port Arthur Snorkel Snoopers and I belong to the Beaumont Hammerhead Divers.

Carl Neukirch  
4735 Ironton  
Beaumont, Texas

... On many safety floats which fit around the waist the quick release buckle usually winds up behind your back. When wearing a tank, this makes it very difficult to put on and, in an emergency, troublesome to take off. I am sure other divers would be interested in what you think of this situation.

Barry Steiner  
185 Gallatin Street  
Providence 7, R. I.

Safety floats are very personal items, with each diver usually having his own preference. A poll of the staff members of SDM brought out the following results. The belt type float and the vest type float are about evenly preferred. Of those who use the belt type, one wears the float around the chest and has no shifting problem. Another has replaced the strap with a regular belt. The belt also carries the knife and the float hangs relatively free, ready for instant use. The knife helps maintain the position of the belt around the waist. Another wears the float with its original strap, but claims to have no shifting problem since the actual strap of the float is beneath the tank straps. In all cases, the heavy equipment can be ditched while the float remains with the diver.

... I enjoy your magazine very much. I thought "Alone In Shark Waters" and "Diving and Your Body" were especially good. Keep up the fine work.

Terry Thwaites  
11514 127th St.  
Edmonton, Alberta, Canada

... I have been interested in swimming a long time and I would like to know where I can take skin diving lessons.

John Grim  
34 Terrell Ave.  
Rockville Centre, L. I., N. Y.

The best way to find good instruction is to inquire at your local diving shops. They no doubt will have certified instructors, possibly even a National Association of Underwater Instructors certified instructor. You are on the right track in seeking competent instruction before attempting to dive.

(Continued on Page 6)

# World's Most Complete Skindiving Headquarters

**SELF-WINDING UNDERWATER WATCH**  
SAVE \$90. NATIONALLY ADVERTISED AT \$135

Stainless steel case guaranteed absolute waterproof reliability. Bezel completely protected under unbreakable crystal. Bezel rotated by separate wind knob. Extra luminous, self-winding, 17 jewel Swiss movement. Full 1 year guarantee.

**CENTRAL'S Super Duper Special \$44.95**  
plus 10% F.T.



**UNDERWATER WATCH**


Similar quality to above, but wind model without bezel. Fully guaranteed to 600 ft. Needs no servicing for 3 years. Ultra luminous dial and hands, unbreakable mainspring, waterproof band, rugged yet attractive, shock protected, 17 jewel Swiss Movement. Nationally advertised price \$65.00.

**CENTRAL'S Special \$26.95**  
plus 10% F.T.



**DIVING WATCH**

Shock protected, precision movement, luminous. Guaranteed by world famous maker to 200 feet. Deluxe stainless stretch band. **CENTRAL'S Special \$14.95**  
plus 10% F.T.



**SCUBA DIVER** **AUTO EMBLEMS**  
Metal \$1.95




## NEW DELUXE FINISHED SUIT

FULLY TAPED SEAMS  
ZIPPER LEGS  
FREE REPAIR KIT



CENTRAL has done it again! Now you can buy a FIRST quality skin 2 sides Neoprene CUSTOM MADE SUIT for just a few pennies more than a kit. This is the new 1951 supply, top quality 400% stretch Neoprene used by all the leading suit manufacturers. Why bust your chops cutting and glueing and glueing and cutting a kit into a do-it-yourself suit? CENTRAL'S factory can custom make a finished suit to your exact size quicker; one you will be proud to wear. Why buy a bad fitting high priced stock suit when a custom suit is warmer, needs less weights and with CENTRAL'S TERRIFIC DEAL, COSTS YOU LESS.

Check these features: A. No roll gauntlet hood, B. Snug fit face port, C. No press ear pocket, D. New high neck, E. Protective chest flap, F. Corrosion proof nickel silver aluminum zipper (with five year perfect use), G. Sure lockrotch snaps, H. Free Flow offset shoulders, I. No bind arm pits, L. New extra high waist pants, M. Fitted reinforced seat, N. Contour legs, O. Gentle Grip Cuffs. Send following sizes: Neck, Chest, Waist, Hips, Ankle, Wrist, Crotch to Ankle, Center of Back to Wrist Full height, Hat size, Weight (Bra size).

**NOTICE:** All our suits (Men's or Women's) are made with a protective spinal pad, double knees and double elbows. These as well as all seams are fused by our 45° angle secret fusion method. This makes your suit last twice as long and enable us to GUARANTEE it against defects in manufacture for ONE FULL YEAR.

¾" SKIN 2 SIDES For the whole works as above a \$49.95 value  
custom full suit for..... **\$35.00**

¼" SKIN 2 SIDES for the whole works as above a \$59.95 value  
custom full suit for..... **\$41.50**

AQUA LUNG  
VOIT  
HEALTHWAYS  
ETC

1007 UTICA AVE.  
BROOKLYN 3, N. Y.  
DI 5-1070



TANKS FILLED

SWIMASTER  
DACOR  
SPORTSWAYS  
ETC

160-09 JAMAICA AVE.  
JAMAICA 32, L. I., N. Y.  
RE 9-5772

### BOOK SPECIALS

- \$5. The Compleat Goggler \$3.
- \$5. Underwater Work \$4.
- \$5. 1001 Sunken Treasures \$4.
- \$2. Underwater Photography \$1.
- \$3 Diving for Gold \$3.

- \$6 Crampi Skin Diver..... \$5
- \$4 Dangerous Marine Animals..... \$3
- \$3.50 Underwater Photography..... \$3
- \$3.50 Mask & Flippers..... \$3
- \$6 Cousteau Treasure..... \$5

### UNDERWATER CAMERA

Now you can photograph undersea life, with a minimum of expense. Famous make underwater camera, perfect for Black and White and Color. Use inexpensive roll film. Housing is camera. Deluxe Model!..... **\$14.95**



### TANK REGULATOR SPECIALS



**REGULATORS**

- Single Hose 2 stage \$37.50 list \$26.50
- Double Hose 1 stage 52.50 list 37.50
- Double Hose 2 stage 82.50 list 54.50

All other models at same low prices.  
What do you want?

**TANK BLOCKS**

- Single 42 cu. ft. \$55.00 \$39.50
- Single 80 Minute K 62.50 47.50
- Double 42 cu. ft. 120.00 89.50
- Single 80 Minute J 82.50 62.50
- Double 80 Minute J 150.00 117.50

All tanks include deluxe pack valve, air. We pay shipping.

### CAMERA CONTROLS


Double-O ring  
1/4" x 5"  
Stainless Steel shaft.  
New precision lubricated gland.  
Worth \$5 ea.  
\$1.99 ea.  
3 for \$5



### COMPASS DEPTH GAUGE

Liquid filled compass with Bourdon principle depth gauge. Extremely accurate, luminous, rugged, non-corrosive nickel plated brass case with heavy duty wristband. Easy to read increments.

100' Model.....  
250' Model..... **\$9.95**





### DIVER'S KNIFE

Deluxe Stainless steel blade with high impacted handle. Heavy duty 12 inch length. For cutting or prying. Black comfortable leg sheath with straps.  
\$9.95 value  
**Special \$6.95**

### LIGHTWEIGHT TRAINING UNIT

New deluxe 2 stage single hose regulator with double exhaust and clearing button. Tested to 300 ft. Complete with automatic reserve. Tank block is lightweight with approximate 55 minutes air time and new comfort fit back pack. \$1 diving instruction book included free. Filled with air. CENTRAL pays shipping.  
\$90 Value Special **\$59.95**



### UNDERWATER SPOTLIGHT

Central brings you the famous type 40,000 candlepower lite completely pressurized to 200 ft. and guaranteed. NEW improved model..... **\$9.95**



### SKIN DIVER JEWELRY



Finely detailed silver or gold finish. Individually gift boxed. Available with Diver, Shoe Fin or Aqua-lung.

- \$2.95 Tie Bar..... \$1.95
- \$4.95 Tie Bar and Cuff Link..... \$3.50
- \$1.95 Tie Tack..... \$1.50

### ARBALETE SPECIALS

- Reg. \$27.50 Deluxe Arbalette..... **\$19.50**
- Reg. \$19.95 Standard Arbalette..... **\$14.50**
- Reg. \$17.50 Junior Arbalette..... **\$12.50**
- Reg. \$14.95 New Deluxe Bantam..... **\$ 9.95**
- Reg. \$24.95 Saetta Spring Gun..... **\$17.95**

## ORDER FORM... MAIL TODAY!

**CENTRAL SKIN DIVERS** 160-09 JAMAICA AVE  
JAMAICA 32, L. I., N. Y.  
PLEASE SHIP THE FOLLOWING ITEMS

QUANTITY	DESCRIPTION	PRICE

I enclose \$..... in full. Central pays shipping.

NAME.....  
ADDRESS.....  
CITY..... ZONE..... STATE.....

# SKIN DIVER MAGAZINE



LYNWOOD, CALIFORNIA, U.S.A.

Telephone NEvada 6-0581



Publisher  
Skin Diver Publications, Inc.

Jim Auxier, President  
Chuck Blakeslee, Vice-President



## Editorial

Jim Auxier, Editor  
Connie Johnson, Associate Editor  
Ross R. Olney, Associate Editor

## Advertising

Chuck Blakeslee, Advertising Manager  
John Gaffney, Advertising Sales  
Oren K. Beard, Ad Coordinator  
Sheila Mundon, Ad Accounting

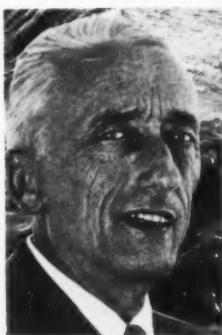
## Magazine Sales and Circulation

Edna Fristad, Louise Gober, Dorothy Cox



## cover

Jacques-Yves Cousteau . . . Manfish, with the sea he loves as a background. Photo was taken by well-known Los Angeles photographer Chan Bush during a recent West Coast visit of Cousteau. See feature on Page 18.



DEVOTED TO THE UNDERWATER WORLD

## FEATURES

- 18 Jacques-Yves Cousteau . . . Manfish Ross R. Olney
- 22 Wreck of the Trinity Ledge E. Britton
- 24 Alaskan Gold . . . The Hard Way Bill Huckins
- 26 Diving in Switzerland Walter A. Bertschi
- 30 World Spearfishing Meet SDM Staff Feature
- 36 Robber Sharks of Rangiroa D. L. Bergman
- 38 Diving Girls of Pohang Major Howard D. Stewart
- 42 Rockbound Pete Jamerson
- 46 Glasspar Contest Winners SDM Staff Feature

## DEPARTMENTS

- 2 Reader's Ripples  
Also 6, 8, 14, 15
- 10 Olney's Overseas Observations
- 12 Underwater Bookshelf
- 29 Oceanography
- 32 Driftwood
- 34 National Association of Underwater Instructors
- 41 Personality Spotlight
- 44 Junior Fin Fans
- 48 News Current
- 49 Technifacts
- 49 Boating Suggestions
- 52 New Products
- 54 Diving Equipment and Compressed Air Stations
- 60 Book Review  
"American Seashells" and "Caribbean Seashells"

Contributing Editors—Jerry Dzindzeleta, Ed and Jean Dowd, Lee Cozad and Robert Given.

## Skin Diver Magazine

is published on the first of each month by Skin Diver Publications, Inc., P. O. Box 111, 11220 Long Beach Blvd., Lynwood, California. Second-class mail privileges are authorized at Lynwood, California and Los Angeles, California. Printed in U.S.A. Copyright 1961 by Skin Diver Publications, Inc. Subscriptions in United States and Canada, 1 year \$4.00, all other countries \$5.00. Four weeks notice is needed to change a subscriber's address. Please give both old and new address, including postal zone numbers. All manuscript, photography and materials are submitted free and released for publication becoming the property of Skin Diver Publications, Inc. Authors and photographers should clearly mark all material submitted for publication so that credit may be given. The publishers do not necessarily agree with nor stand responsible for opinions expressed or implied by others than themselves.

Closing date for all copy is forty (40) days prior to date of publication. Advertising rates are furnished upon request, please identify company and product with request for rates. See SRDS.

Skin Diver Magazine DIVING NEWS EDITION is published quarterly as an addition to the magazine and is circulated to paid subscribers only as a part of the regular subscription price. Clubs and councils are asked to submit news for inclusion in the DIVING NEWS, maximum, 600 words. Register your club or council name, address and secretary in our world wide list of organizations.

## Foreign Subscription Representatives

Peter F. Hobson  
344 Topsham Road,  
Countess Wear  
Exeter, England

Gordon & Golch (NZ) Ltd.  
75 Anzac Ave.  
Auckland, New Zealand

American & Overseas  
Publications  
P. O. Box 3025  
Port Elizabeth, South Africa

Technical Book and  
Magazine Company  
295 Swanston Street  
Melbourne, Vic., Australia

Libreria Ledi, S. A.  
Via Cusani 13, Milano, Italy

Technical Books, Ltd.  
27-31 Victoria Street West  
Auckland, New Zealand

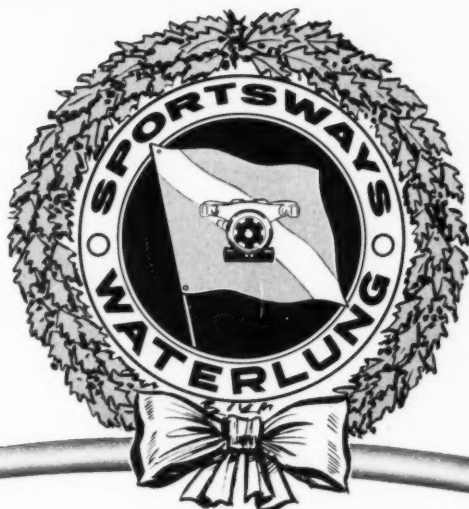
Joao Carlos Vogt  
P.O. Box 144  
Rio de Janeiro, Brazil

Dennis Osterlund  
Odinsgatan 3  
Göteborg C, Sweden

Grahame Book Co., Pty. Ltd.  
39 Martin Place  
Sydney N.S.W., Australia

Brentano's  
37, Avenue de L'Opera  
Paris, France





*Holiday Gift Ideas!*

**NEW!**

## "MALIBU DIVER" WATERLUNG REGULATOR

The **QUALITY** Regulator  
**ECONOMICALLY** Priced!

Compare this new Waterlung with  
any regulator in its price range.  
See the new "Malibu Diver"  
at your dealer now.

only  
**\$35<sup>95</sup>**

Cat. No. 1330

... with SeaVue Gauge  
Cat. No. 1331—\$60.95



### WATERLUNG SNORKEL

The most efficient  
and comfortable Snorkel  
ever developed.

1620 (International  
Orange Tube) \$2.95  
1621 (Jet Black  
Tube) . . . . \$2.95



### "MERMAID" Diving Watch

Attractive, pressureproof,  
Tritium, 17 Jewel, white strap.  
1409 . . . . . \$45.00

### "MARINER" Diving Watch

Stainless steel, Tritium mark-  
ings, pressureproof, 17 Jewel,  
black strap.  
1408 . . . . . \$42.50



### DIVER KNIFE and SHEATH

The finest, most versatile  
knife ever developed. 7"  
stainless steel blade, one-  
piece Cycloc molded guard  
and handle. High quality plas-  
tic leg sheath.

1630 . . . . . \$9.95



"THE WORLD'S MOST ADVANCED DIVING EQUIPMENT"

**SPORTSWAYS, INC.**

A Subsidiary of Shore-Calnear, Inc.

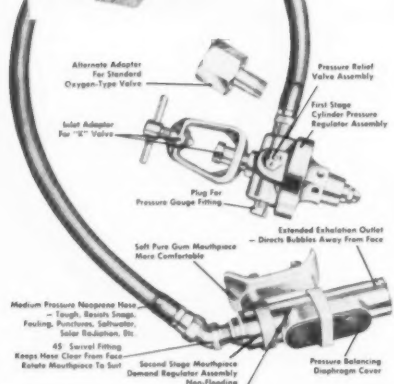
7701 E. COMPTON BLVD.  
PARAMOUNT, CALIF.

# SEND FOR IT NOW!

## FREE PRO-DIVING CATALOG-MANUAL



See  
the New  
Super  
PRO-  
Lung!

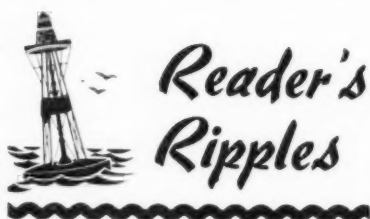


Yours for a post-card! The only free catalog-manual of its kind. Packed with latest PRO-Lung kits and top quality accessories for every purpose . . . all at lowest mail order prices. No need to search for your equipment. Shop the easy way. Select the safe way. Buy the low-cost way . . . from your personal copy of the new, FREE PRO-DIVING CATALOG-MANUAL.



Complete PRO-"lung" information for underwater fun, adventure, profit. Spear fishing, treasure hunting, exploring, boat maintenance, salvage, life-saving, utility diving. Tell-all instructions and tech-data by registered, licensed experts. New PRO-61 models, accessories. Save 1/2 or more with PRO "Factory-to-You" offer. Send for FREE Catalog-Manual now.

**ROSE AVIATION, Inc.**  
Box 3061 Aurora, Ohio



## Reader's Ripples

(Continued from Page 2)

. . . I have heard that there are recompression chambers at both Bonneville Dam in Oregon and the Bremerton Naval Base, Bremerton, Washington. True?

Bill Gilmer  
13300 SW Fielding Rd.  
Lake Oswego, Ore.

If we hear from either place we'll confirm.

. . . In your September issue of SDM you mentioned twelve universities giving graduate work in oceanography. This appeared in Ross R. Olney's Oceanography series. I would like the names of these universities.

Randall Means  
154 Highland Terr.  
Pitman, N. J.

So would many, many others, and Olney is hanging his head for not listing them. The information came from another publication but he has enlisted the aid of Lee Cozad of Technifacts and come up with the following list. Texas A & M, UCLA, U of Southern Calif., Scripps, U. of Washington, New York U., Columbia, Mass. Institute of Technology, Harvard, John Hopkins, U. of Miami, Florida State, U. of Hawaii and U. of British Columbia.

. . . As an embryo skin diver but with no natural teeth, the article by Little Joe Mangus in your August issue was read and re-read in an effort to learn where to contact Joe for further information on his molded mouthpiece.

R. L. Hyde and Son  
14 Candlestick Road  
San Francisco 24, Calif.

Little Joe Mangus can be contacted at 210 Burton Rd., Middletown, Ohio

. . . Most schools nowadays sponsor activities other than the three Rs. There are school clubs for almost every subject, science clubs, conservation clubs, Latin clubs, spelunkers, 4-H, etc. I see no reason why skin and scuba groups couldn't be organized. All of the fundamentals would be taught and elementary procedure in skin diving would also be instructed with safety, of course, the idea. Diving is a fascinating sport and I believe this way students from junior high through senior grade can enjoy the nation's fastest growing sport more safely and have more fun as a member of an organized group.

Leary Hopkins  
Prospect, Kentucky

An excellent idea, Leary.

. . . I would like to get some information as to the diving facilities, nearby reefs and boats that cater to divers, in the general area of Acapulco, Mexico. Also the names and addresses and officers of the local Skin Diving Club.

Joseph L. Gruber  
11 Rumson Road  
Livingston, N. J.

Contact Divers of Mexico, S.A., Costera Miguel Aleman 98-4, Acapulco, Gro., Mexico, for further information.

(Continued on Page 8)

the S EVEN EAS

3/16"  
WET SUIT

**38<sup>00</sup>**

- Hood, Shirt, Pants, Boots
- 3/16" 400% Stretch Neoprene
- Skin Two Sides
- Custom Tailored
- 100% Guaranteed

WRITE 514 S. BAYSHORE, SAN MATEO, CALIF.

**NEW**

**NEW**

Only 75c  
for big 1 1/2 oz.  
bottle, Postpaid

NEOPRENE PAINT

Guaranteed in the Bottle and on your suit for one year.

MARK YOUR EQUIPMENT

Bonds to all rubber goods, cloth and wood.

FREE: Catalog of many other Diving accessories

AQUA-CRAFT

4335 Poplar Street, San Diego 5, California

### Divers Training Academy

STATE & VETERAN APPROVED

**Prepares you for**

- SALVAGE
- MARINE CONSTRUCTION
- EXPLORATION
- PHOTOGRAPHY

**EXPERT INSTRUCTION** by Navy trained personnel. Students use latest equipment.

**CLASSES GO TO SEA** in most ideal diving conditions in America. Students train in nearby **FLORIDA KEYS**, and Bahama islands. Dormitory facilities available.

**TRAIN NOW** for top-paying jobs in fast-growing diving field. Over 1,000 companies today use trained divers.

**YOU GET**

- Diploma-Recognized and Certified
- Placement Service
- Apprenticeship program
- Student-work during training
- Unlimited training

### ENROLL NOW

**DIVERS TRAINING ACADEMY**  
John McGinnis, Director—Dept. 11  
9501 Old So. Dixie Hwy.  
Miami (Kendall) 56, Florida

I've enclosed 25c. Please rush me your illustrated catalog giving complete information on courses checked below.

\* ☐ 1 Commercial deep sea diving\*

\* ☐ 2 Deep sea diving

\* ☐ 3 Commercial shallow water diving

\* ☐ 4 Scuba instructor rating

☐ 5 Scuba diving

☐ 6 Skin diving

☐ Correspondence information

☐ Equipment catalog

\* Includes course in celestial navigation

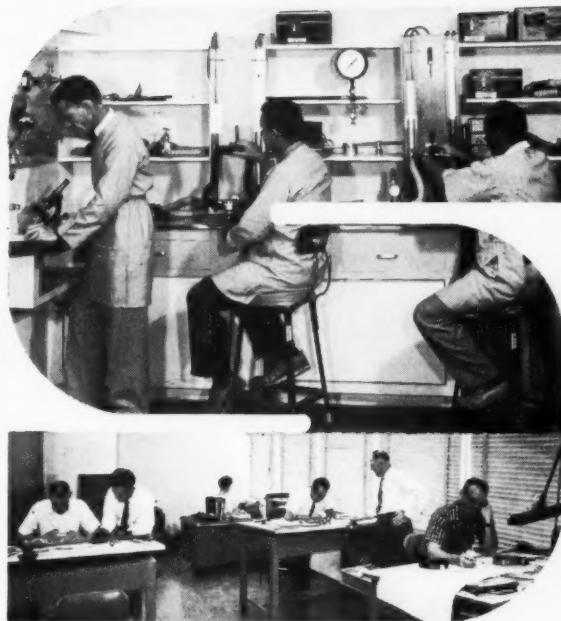
Name \_\_\_\_\_ Age \_\_\_\_\_

(Please print plainly)

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

☐ Veteran      ☐ Non-Veteran



## WITH U.S. SAFETY COMES FIRST

Underwater safety starts at the drawing board and in the laboratory. Basic design and careful engineering determine the safe performance of skin diving equipment—not pretty colors or fancy gimmicks.

The "Aqua-Lung" and U.S. Divers products have maintained a twenty-year reputation as the finest diving equipment in the field. This reputation is not an accident—it is earned by product performance in the most demanding laboratory of all—the underwater world. Twenty years of dependable performance have made U.S. Divers customers our best salesmen.

The world's top diving engineers and the world's most modern and complete diving laboratories are your guarantee of safety and performance.

An additional guarantee of safety and dependability is insured by meticulous quality control and inspection at U.S. Divers assembly plants. Each individual part is carefully inspected before assembly. After assembly, each unit is again inspected and tested before packaging for shipment.

Every regulator is tested on a flow-meter, and its performance permanently recorded. Every cylinder and valve assembly is water-tested for leaks.

Every piece of equipment is important to diving safety but, above all others, your regulator is the most vital. U.S. Divers extensive program of research, devel-

opment and testing has consistently maintained the "Aqua-Lung's" reputation as the leader in the field. The Aqua-Lung offers you the safest and easiest breathing regulators ever developed.

By "easy breathing" we mean that U.S. Divers regulators will provide the large volumes of air flow required underwater without appreciable increase in suction effort. As a comparison, a person sitting quietly and breathing through a straw will have no difficulty in breathing. But if that person is under exertion, the straw will restrict air flow and his suction effort must increase tremendously in order to increase the flow.

"Testing" a regulator by breathing through it on the surface or in shallow water gives no adequate indication of its underwater performance.

In diving, air consumption increases with the depth of the water. The deeper you go, the more air you need. In addition to depth, a diver's demand for air also increases with exertion and his emotional state.

Under conditions of stress, tremendous volumes of air flow are required even in comparatively shallow water. An adequate regulator must be capable of supplying this demand without appreciable increase in suction effort.

These maximum requirements are provided by all U.S. Divers professional regulators. TWO HOSE—The "Aqua-Master"...The "Mistral"...The "Jet-Air"...SINGLE HOSE—The "Calypso"...The "Hydro-Lung Supreme!"

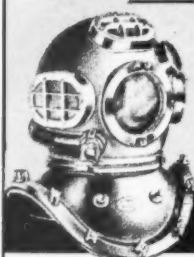
Captain Cousteau's team of diving pioneers testing and developing equipment in his laboratory aboard the "Calypso," plus U.S. Divers modern laboratories and team of diving experts in California, bring you products which combine the finest thinking in both Europe and America.



**U. S. DIVERS CO.** 3323 WEST WARNER AVENUE • SANTA ANA, CALIFORNIA



## EARN BIG MONEY!



Learn  
COMMERCIAL  
Deep Sea  
Diving!

We Train the World's  
Finest Divers!

### NOW IN OUR 8TH YEAR!

- We teach every phase of Commercial Deep Sea Diving.
- Scuba . . . Shallow Water . . . Deep Sea . . . Helium . . . Robot . . . Bell Diving . . . Underwater TV.
- We prepare you for exceptional earnings as a commercial deep sea diver . . . as high as \$10,000 to \$20,000 per year!

Successor to Sparling School of Diving

### VETERAN APPROVED

by Federal and State Governments  
... Also for foreign students.

Expert Instruction by Navy Trained  
Master Divers. Write for details.  
A. MIKALOW, Director

## COASTAL SCHOOL OF DIVING

320 Broadway Oakland, California

## SPECIAL OFFER FOR JUNIORS



(and/or  
their  
parents)

### MEMBERSHIP IN JUNIOR FIN FANS

Members receive notebook, club decal,  
membership card (Regularly \$1).

### ONE YEAR SUBSCRIPTION TO SKIN DIVER MAGAZINE

Twelve big issues that would cost \$6  
on the newsstand.

### \$7 VALUE FOR ONLY \$4.75

Parents can give this gift to their children  
for Christmas. One year subscription will be  
entered as a renewal or extension for present  
subscribers.

You must use this blank, and it must be re-  
ceived by December 25, 1961!

Please print plainly and return to  
SKIN DIVER MAGAZINE (Special Offer)  
P. O. Box 111, Lynwood, California

## SPECIAL OFFER

Name.....Age.....

Address.....

City.....State.....

Send gift card from.....



## Reader's Ripples

(Continued from Page 6)

... Some time this fall several divers from this area will meet with the Fish and Game Interim Fact Finding Committee to discuss the possibility of changing any of the California fishing laws to allow some degree (however slight) of underwater spearfishing of freshwater game fish. While it's realized that at present a certain degree of freshwater spearfishing is allowed in California for some of the so-called "trash fish," many sportsmen don't care for just "trophy" spearfishing and will not spear what they can't eat and enjoy as well—in the manner of the trout fisherman, for example. So, they are setting their sights on trout, bass or catfish.

One of the divers here has circulated an informal petition on this. It simply states, in essence, that the signers would like to see such changes in the laws as mentioned, no matter how limited in regard to species, waters, technique, take, minimum size, hours, season, etc.

R. L. Wagner  
Rich's Aqua Shop  
1045 Park Avenue  
Chico, California

... On January 26, this year, Chuck Carroll and myself, both Honorary Members of the Ramey Sea Lancers, each misplaced a blue, wooden crate, containing diving gear and other personal valuables. Both boxes were lost at MacDill Air Force Base, Tampa, Florida. I recently heard rumor that both boxes have been seen in the 72nd OMS Squadron at Ramey. These boxes are 18" x 24" x 36" and painted blue. I have been told that my name was painted on these boxes (BLOYE), but am not certain. If any person knows the whereabouts of these boxes, please notify the undersigned as soon as possible. A reward is offered for information leading to the return of both boxes.

Don E. Bloye  
N.A.U.I. Certified Instructor  
P.O. Box 157  
Libby, Montana

... I've been reading SDM for two years now and I'm a bit confused about some of your smaller articles ending with "Sea Secrets." An individual? A book? Just what is, or are, Sea Secrets?

Howard V. Lang  
311 Highland Dr., R. 3  
West Bend, Wisconsin

Sea Secrets is a newsletter published by the International Oceanographic Foundation, One Rickenbacker Causeway, Virginia Key, Miami 49, Florida. This group also publishes an excellent magazine, Sea Frontiers. Foundation membership can be obtained by those with an interest in the present and future of oceanography. Write to them for further information.

(Continued on Page 14)

## WORLD WIDE UNDERWATER PUBLICATIONS

### TRITON

16 Beverly Gardens  
London SW 13, England

Journal of the British Sub-Aqua Club  
Bi-Monthly, covers all aspects of the sport of underwater swimming, spearfishing techniques, safety, equipment, photography, plus reports from BSAC Branches.

6 Issues (1 Yr.) \$2.20

### MONDO SOMMERSO

Via Po No. 10

Rome, Italy

Full of color and exciting underwater adventure. Published in Italian.

### L'AVENTURE SOUS-MARINE

11 Bis, Rue de Beaujolais  
Paris 1<sup>er</sup>, France

Bi-monthly, European magazine for submarine hunters and divers. Published in French.

1 Year \$4.00

### DELPHIN

Buchholz bei Hamburg  
Germany

German Monthly Magazine, Swimming, Diving, Underwater Photography and allied subjects. Peter Muller, Editor.

1 Year \$3.00

### PESCASPORT

Galleria Mazzini, 7-1  
Genova, Italy

Monthly Italian National Underwater Spearfishing Review.

1 Year \$5.00

### C.R.I.S.

Via Layetana 30, 2<sup>a</sup> H  
Barcelona, Spain

Magazine of the Sea. Spanish Monthly dedicated to the sea, diving, underwater fishing and deep sea diving. G. Perez Olague, Chief Editor.

1 Year \$4.00





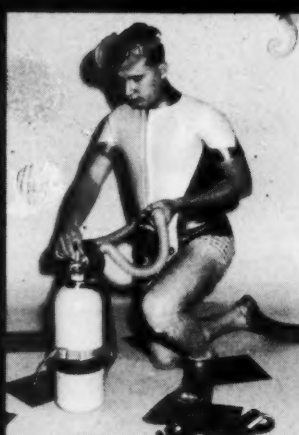
Style 800: Men's V-Lined design full suit. No underarm seams. V-Neck can be worn down for out-of-water comfort. Trousers are chest high giving double thickness body coverage.



Style 400: Men's professional style one piece suit for extremely cold water. Set-in type sleeves for snug, comfortable fit. Extra-long, sturdy front zipper for easy entry.



Men's Shorty: A short sleeve jacket-swim trunk combination with front zipper. Ideal for use in moderate or warm water for diving, spearfishing, water skiing and surfing.



Style 500: Men's Tunic. A short sleeve jacket with zipper front and crotch piece. Double backed non-corrosive snaps. Excellent for warm water diving, spearfishing, skiing and surfing.



### "GIVING A GIFT?"

"Any diver would appreciate a PARKWAY wet suit! Mrs. Claus gave me a PARKWAY suit. The PARKWAY contoured fit keeps even my shape snug and comfortable, and that four hundred percent stretch neoprene gives me extra expansion for my hearty Ho... Ho... Ho's. If I make a forced landing anywhere, from the Arctic Ocean to the Gulf of Mexico, I can count on my PARKWAY suit to keep me in jolly spirits till I'm on my way again. See you next month... and who knows... I may have a PARKWAY suit for you."

**PARKWAY** *fabricators*

348 Bordentown Avenue South Amboy, New Jersey

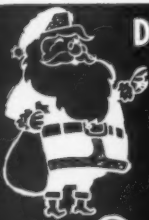
Style 200: Women's full suit. Built-in bustline, shaped waist and hips, off-set sleeves and heavy duty front zipper gives the ladies the snug comfortable fit they like. Men like it too.

Women's Shorty: A short sleeve jacket-swim suit combination with built-in bust, shaped waist and hips. Flatters the female figure. Ideal for use in moderate water for all water sports.

Women's Tunic: A short sleeve jacket for use in warm waters. Here again we have contoured the bustline, waist and hips. Crotch piece has double backed non-corrosive snaps.

Style B 100: Boy's full suit. Snug body fit with set-in type sleeves and high collar. Heavy duty front zipper. Extra high trousers give double body coverage with jacket.





**DIVER'S DEN** does it again!  
We're playing Santa.

YOUR CHOICE 1/4 in. or 3/16 in.  
No. 1 Grade SKIN 2-SIDES FOAM NEOPRENE

**WET SUIT** READY TO WEAR

COMPLETE WITH HOOD,  
JACKET, PANTS Plus

**FREE** \$5.00 pair of  
diving boots

**\$29<sup>50</sup>**

DESIGNED FOR PROS

No. 1 Grade 400% stretch, skin 2 sides foam neoprene used throughout. **THE BEST MONEY CAN BUY.** Your choice, popular 3/16ths. inch or extra warm 1/4 inch. New, better fitting contour hood design with yellow safety stripe. Jacket features double spine protector, high-shaped collar, quadruple welded anodized zipper. Snaps are non-corrosive. Designed for professionals with extra high waist pants and form fitted, 3-pieced boots.



SEND TODAY FOR FREE  
CHRISTMAS CATALOG.

Dealer and Club inquiries — you bet!

**MAIL THIS COUPON TODAY!**

**Diver's Den**

2123 NO. 30th  
TACOMA, WASH.

Send us your name and address and we'll  
keep you informed on all the best diving  
buys!

Send EXACT measurements.

Neck	_____	Height	_____
Chest	_____	Weight	_____
Waist	_____	Hat Size	_____
Hips	_____	Shoe Size	_____

3/16 inch. \_\_\_\_\_ 1/4 inch. \_\_\_\_\_

NAME \_\_\_\_\_

Street Address \_\_\_\_\_

POST OFFICE (Town) \_\_\_\_\_ STATE \_\_\_\_\_

ENCLOSED \$ \_\_\_\_\_ Check or money order in full

ENCLOSED 1/2 \$ \_\_\_\_\_ Send balance C.O.D.



## OLNEY'S OVERSEAS OBSERVATIONS

Points of interest noted in foreign diving  
and fishing publications by Ross R. Olney,  
Associate Editor.

After a rather painful encounter with a sea urchin, Bill succeeded in getting his punctured friend to a doctor's office then was surprised when the man refused to enter.

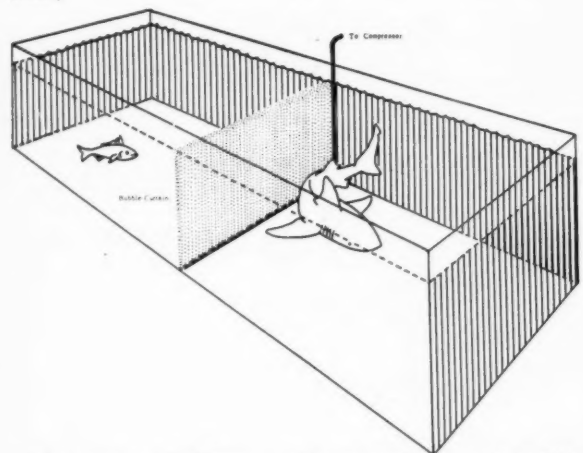
"He's the best doctor in town," Bill argued.

"Maybe he is," replied the friend, "but I don't like the odds he offers. Look at his sign there . . . 10 to 1." (*Field and Tide, South Africa*)

There'll always be an England and, truly, the sun never sets on the British Empire. Charles Lagus, British Broadcasting Company producer and Geoffrey Mulligan, cameraman, were filming wild animals in the heart of the African jungle. Both men are members of the British Underwater Centre, well-known British diving club. Out of the green jungle strode a deeply suntanned giant, naked but for a pair of brief shorts . . . and on the shorts, a British Underwater Centre badge.

A modern day Livingston, you presume?

Well, not quite, but it did turn out to be one Noel Verrinder, who prefers the rugged jungle life . . . and is actually a BUC member of several years standing. (*British Underwater Centre News*)



The reactions of different species of sharks to an air bubble curtain are being studied by Professor David H. Davies, Oceanographic Research Institute, Durban, South Africa. The experimentation tank, illustrated above, is separated by a bubble screen with sharks, or sharks and food, on either end. Though many of the different species would not penetrate the barrier under what might be called "normal" circumstances, almost every species could be provoked to break through with temptations such as food on the other side. It became evident that such a barrier could be to some extent effective but that circumstances could easily arise making the screen almost useless. In fact, in some species, the tiger shark for example, the barrier was completely ineffective. Experimental work will be continued, however, with the thought in mind that perhaps no single measure is effective, where a combination of measures may be the answer. (*Field and Tide, South Africa*)

Archaeologists hope to resume exploration next fall of the ancient Mayan sacred wells, or "cenotes," in Yucatan, Mexico, where beautiful maidens once were hurled to their deaths as a sacrifice to the rain god, Chac-Mool. Excavations had been halted when officials decided enough objects had been raised to provide study for months to come. Cenotes are approximately 90 feet deep and have been found to contain the bones of teenaged girls along with precious metals and stones. Such sacrifices were made by the Mayans between the tenth and thirteenth centuries, long before the Spanish conquest. (*New York Herald Tribune*)



PHOTO BY: FLORIDA CYPRESS GARDENS

**FINE EQUIPMENT MAKES DIVING MORE ENJOYABLE**

## **THE DACOR D-PAK HARNESS ASSEMBLY**

**• LOOKS BETTER • FEELS BETTER • IS BETTER**

**A COMPLETE LINE OF HIGH QUALITY DIVING EQUIPMENT**



# **DACOR**

**CORPORATION**

**P.O. Box 551 • Evanston, Illinois**





ORDER NOW IN TIME FOR CHRISTMAS

# Underwater Bookshelf

## American Seashells by R. Tucker Abbott

This beautiful big book, 541 pages plus 80 pages of color and black plates, paintings and drawings, covers definitive identifications of some 1500 varieties on Atlantic, Pacific and Gulf Coast shores.  
BOOK #2..... \$13.75

## Underwater Photography by Hilbert Schenck and Henry Kendall

BOOK #28..... \$3.50

## The Compleat Goggler by Guy Gilpatric

The first and perhaps the most entertaining book ever written on undersea adventure. A story compiled when the complete equipment consisted of goggles, knife and a hand spear. A "must" to add to your underwater literature.  
BOOK #27..... \$5.00

## Marine Life of the Pacific Tidal Regions by Dan Ryan

Full color photographs and scientific descriptions. Water proof cover.  
BOOK #17..... \$1.75  
BOOK #17-P (Paper Cover)... \$1.00

## Dangerous Marine Animals by Bruce W. Halstead

A handbook for skin divers, shell collectors, physicians, explorers, biologists and others. A worldwide guide to poisonous and venomous marine animals and on the general subject of underwater biological hazards.  
BOOK #37..... \$4.00

## A Manual for Free Divers Using Compressed Air by D. M. Owen

BOOK #5..... \$2.25

## A Guide To Underwater Photography by Dimitri Rebikoff and Paul Cherney

BOOK #1..... \$1.95

## Basic Scuba by Fred M. Roberts

A comprehensive, clear, accurate and useful text on the operation, maintenance and safe use of all makes of Scuba, plus all the other equipment used in skin diving.  
BOOK #52..... \$8.50

## Mask and Flippers: the Story of Skin Diving

by Lloyd Bridges,  
as told to Bill Barada

In this book, television's "Mike Nelson" has assembled the knowledge and experience accumulated by thousands of underwater men over a period of many years.  
BOOK #54..... \$3.50

## Salt Water Aquarium In the Home

by Robert P. L. Straughan



Setting up the tank, maintaining the aquarium in proper condition, caring for and feeding the sea creatures. Newest and most modern methods. More than 100 photos for the marine hobbyist with or without an aquarium.  
BOOK #47..... \$7.50

## Underwater Photography and Television

by E. R. Cross

BOOK #39..... \$6.00

## Marine Salvage Operations

by Edward M. Brady

A practical handbook for ship salvage men, commercial and naval divers, merchant marine and naval officers, as well as professional scuba divers. 256 pages, illustrated.  
BOOK #49..... \$8.50

## The Skin Diver by Elgin Ciampi



Written by a member of the world-famous Explorers Club. Actually three volumes in one, it includes complete "how-to-do-it" instructions; scientific data on marine biology and oceanography; and exciting

tales of adventure.

BOOK #51..... \$6.00

## Atlas of Treasure Maps

by F. L. Coffman

BOOK #34..... \$10.00

## Underwater Navigation for the Scuba Diver

by Jack E. Glatt

Basic navigational techniques applied and modified to meet requirements of Scuba divers.

BOOK #53..... \$1.00

## Shallow Water Diving and Spearfishing

by Hilbert Schenck  
and Henry Kendall

BOOK #29..... \$4.00

## Underwater Work

by John E. Cayford

BOOK #46..... \$5.00

## Science of Skin and Scuba Diving developed by the C.N.C.A.

Everything a diver needs to know to insure safe and scientific diving. Written by Army and Navy authorities, medical specialists and experienced divers and trainers. Information on medical aspects of diving, gases used for scuba, repairs, currents, first aid.  
BOOK #18..... \$4.95

## Underwater Photography Simplified

Enlarged and Revised Edition

by Jerry Greenberg

Filled with facts about underwater photography in lay language by an ace cameraman.

BOOK #32..... \$2.00

## Diving Lectures

By Jack Fraser

Excellent lecture programs for instructors and libraries.

BOOK #63..... \$1.00

## Wet Exposure Suits

By Jack Fraser

Pattern making and suit making guide—rubber sources.

BOOK #64..... \$1.00

## Sunken Treasure Maps

Eastern Seaboard, 217 ships, Gloucester to Delaware River incl. L. I. Sound. 17"x23" map and identification key giving longitude latitude and depth. United States Treasure Map. MAP #41..... \$5.00

Florida, Gulf of Mexico and Caribbean, 175 locations, Savannah, Georgia to Trinidad off South America. 17"x23" map and identification key giving longitude, latitude and depth. United States Treasure Map. MAP #42..... \$5.00

## 1001 Lost, Buried or Sunken Treasures

by F. L. Coffman

A fascinating book of facts about treasure that will excite the armchair treasure-hunter and be of great use to the practical treasure hunter who is buying electronic equipment.

BOOK #35..... \$5.00

## NEW BOOKS

### Ancient Treasure Maps

Reproduced on parchment, these beautiful old maps are exactly as the seafarers of hundreds of years ago saw them. Authenticated by expert historians, they make accurate charts or exciting wall decorations.

COSTA RICA—EQUADOR—PANAMA

MAP #65 (your choice)..... \$2.00

MAP #66 (set of three)..... \$5.00

### Living Fishes of the World

By Earl S. Herald

303 pages—300 illustrations including 145 in full color—prepared by Curator of Steinhart Aquarium, California Academy of Sciences.

BOOK #58..... \$12.50

### Creatures of the Sea

By Capt. William B. Gray

209 pages—author is collector at Miami Seaquarium and has been studying and bringing fishes back alive for over 30 years.

BOOK #59..... \$3.95

### Diving for Pleasure and Treasure

By Clay Blair, Jr.

Treasure, Monitor, sharks, cannon, galleons, Mayan sacrificial wells included in 348 pages of adventure.

BOOK #60..... \$4.95

### Sea Shells of Tropical West America

By A. Myra Keen

Lower California to Columbia—1,650 species—nontechnical descriptions.

BOOK #61..... \$12.50

### Marine Fishes of Rhode Island

By B. L. Gordon

Guide book to 215 species of salt water fish—80 photographs.

BOOK #62..... \$4.00

## BEST SELLERS

### Treasure Diver's Guide by John S. Potter, Jr.

Evaluates possible treasure and feasibility of salvage operations on sunken ships ranging from early galleons, World War II casualties, down to the Andrea Doria. Descriptions, histories, illustrations, 480 pages, 22 special maps.

BOOK #57..... \$9.50

To order books from this department please give the full name of the book desired and the book number. Be positive to print or type your full name and address on your letter. Send full amount of money for all of your purchases by check or money order payable to "Skin Diver" to:

Underwater Book Shelf Dept.  
SKIN DIVER Magazine  
Lynwood, California

ORDERING INSTRUCTIONS



THIS  
ROLEX WATCH  
SPENT 20 MINUTES ON  
THE PACIFIC OCEAN FLOOR,  
35,797 FEET DOWN,  
AND CAME UP  
TICKING!



No idle claim, this... to test its famous water and pressure-proof Oyster principle, Rolex attached this Oyster Perpetual to the *outside* of the bathyscaph "Trieste" when it made a record dive into the Marianas Trench near Guam, on January 23, 1960.

The standard Rolex chronometer movement, in a special Rolex Oyster case, withstood pressures of over *six tons per square inch*, maintained perfect accuracy throughout and after this grueling test!

The same outstanding Rolex craftsmanship that produced the "bathyscaph" watch, (now in the Smithsonian Institution in Washington) is applied with equal effectiveness to the Rolex Submariner, available at Rolex jewelers everywhere, and relied upon by experienced skin divers the world over.

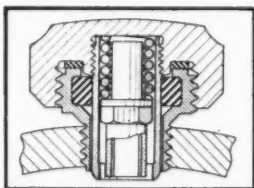


Diagram of the Rolex Oyster crown showing the two interlocking and self-sealing planes which slide together, assuring a completely water and pressure-proof seal.

  
**ROLEX**  
OYSTER PERPETUAL

**FREE—Rolex Skin Diver Handbook:** has hand signal dictionary and decompression table. Write Dept. SCUBA, American Rolex Watch Corp., 580 Fifth Avenue, New York, N. Y.



**ROLEX SUBMARINER**—guaranteed water and pressure-proof to a depth of 660 feet\*, super shock-resistant, with self-winding 25-jewel certified chronometer movement. Revolving bezel registers elapsed time, hands and dial are extra luminous for utmost visibility in deep water. With new protective Crown-Guard and matching bracelet, \$180.00. 17 jewel model, pressure-proof to 330 feet\*, \$150.00. Also by Rolex, the Tudor Submariner, pressure-proof to 660 feet\*, \$127.50. (including federal tax)

\*With case, crown and crystal intact.

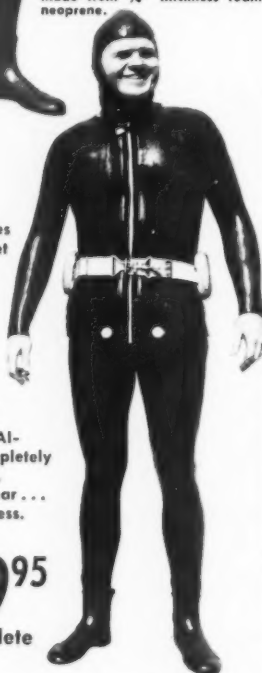
# Farmer Johns



Features a new realm in underwater warmth and comfort — Tailor made to your measurements — A perfect fit guaranteed — longest lasting neoprene suit ever made — Unexcelled craftsmanship —

Perfect for Skin Diving, Water Skiing & Gold Diving. Suits made from 1/4" thickness foam neoprene.

Suit includes hood, jacket "Farmer John" pants, "Flipper Slipper" by Swim-master, nylon zipper... all CUSTOM TAILORED completely assembled, read-to-wear... 1/4" thickness.



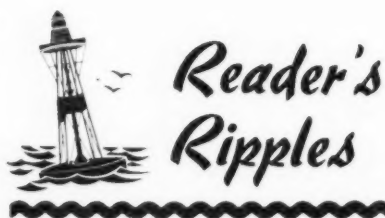
**\$59<sup>95</sup>**  
Complete

## SKI N' DIVE

#1 14610 Lakewood Bl. Bellflower, Calif.  
#2 1900 Westwood Bl. Los Angeles, Calif.

RUSH me your FREE measurement chart

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_



## Reader's Ripples

(Continued from Page 8)

... If we could obtain a free supply of posters promoting the use of the Divers Flag and what it means, we would be happy to see that they are posted in conspicuous places throughout this area.

Gordon V. Hamilton  
Oxford Fire Department  
Oxford, Mississippi

... I have just purchased a wet suit and would like to know the lowest degree of temperature of the water in which my wet suit can be used.

Roger Antersol  
1514 E. Delevan  
Buffalo, New York

*There is no "lowest degree" as such. It depends on your own tolerance to cold but many divers use wet suits in dives beneath ice and claim they are comfortable.*

... The Massachusetts divers are a great bunch of guys. Forty in all turned out for four bitter days to aid in a recent recovery led by the Worcester Frogmen, Inc. A \$600 collection was offered them for lost wages which, of course, they refused. They voted the money to the family of the two young boys who had drowned. Many of the divers were poisoned by an overdose of tetanus shots due to bad water. The diving conditions were the worst possible with a constant temperature of 20 degrees and snow. I heard only one complaint... that was when the disaster officer forced some divers out of the icy water for rest and warmth. They just didn't want to give up.

Is it any wonder that this state is proud of her divers... and as past president of the Worcester Frogmen, Northeast Council and Massachusetts Council, I will ever be humble in their presence.

Dick Myers  
Skin Divers World  
195 Lake Ave.  
Worcester, Mass.

... I am interested in a career in commercial abalone diving. I would like to know what training is needed and where I can get this training. If you do not have this information, please let me know where I can get it. Also, congrats on a fine magazine. Keep up the good work!

P. M. Murray  
211 N. Citrus #24  
Escondido, Calif.

Write to California Dept. of Fish and Game, San Pedro, California, for information on commercial ab diving.

... I am 13 and a newcomer into diving, and enjoy it very much.

After reading three issues of Skin Diver Magazine and joining the Junior Fin Fans Club I have gathered up much useful information.

Keep up the good work.

Bud Glaab  
44002 Hardwood Ave.  
Lancaster, Calif.



FOR  
PICTURES  
THAT **\$ELL**

DIVE-RITE camera housings will give consistently professional results. With proven DIVE-RITE components you can build, at moderate cost, a cylindrical plastic housing for your present still or movie camera that will:

- go to 100' depth or more
- be light and compact
- accept any light meter
- never leak, corrode or seize
- permit visual camera settings
- allow use of various lenses
- give years of service
- look attractive and functional

3—8x10  
GLOSSY  
SAMPLE  
PRINTS  
**\$1.00**

OR WE CAN BUILD IT FOR YOU

Write for  
details, parts  
list and  
free  
construction  
hints

**DIVE  
RITE**

BOX 3445  
LONG BEACH, CALIFORNIA

## SKIN DIVER MAGAZINE BINDERS



**\$3.00** each

Keep your own reference library. Bind each month's SDM in this handsome blue leather-like holder engraved with a gold leaf title. Each binder holds twelve issues.



**SKIN DIVER MAGAZINE**

P. O. Box 111

Lynwood, California

## SKIN DIVERS INTERNATIONAL

Announces . . .

### HYDRO-CAL EMBLEMS

A permanent, plastic emblem with pressure sensitive adhesive on reverse side insuring instant and permanent adhesion to air tanks or bumper. This is a full color emblem you will be proud to own and is printed on material that will hold up under repeated and long submersion. Hydro-Cal Emblems are manufactured and sold only by Skindivers International and are guaranteed to be exactly as represented.



**AIR TANK EMBLEM;**  
4 1/2" x 5" \$1.00  
**BUMPER EMBLEMS;**  
4" x 12" \$1.00  
**WINDSHIELD WATER DECAL** (not for air tanks)  
4 1/2" x 5" .50

Complete set of Hydro-Cal Emblems mailed first class, prepaid, with full instructions on reverse side.

\$2.00



Please specify: "Air Tanks" "Bumper" or "Complete Set"  
Special offer to Clubs: Personalized with your club name free with order of 15 or more plastic emblems.

Send cash or money order to

**SKIN DIVERS INTERNATIONAL**

P. O. Box 20308  
San Diego 20, Calif.



## Reader's Ripples

. . . If you live in or around the area of Sheepshead Bay or Gerritsen Beach, how would you like to have another female companion to dive or snorkel with?

There is not any other female to dive with and I'd love to dive with you. Help me please. I'm 26 years old.

Margaret D. Schutz  
3156 Avenue "W"  
Brooklyn 29, N. Y.  
(Gerritsen Beach)

. . . I am at present stationed at a Naval Air Station in Japan and was very glad to see that your magazine is also available here. My father, also in the Navy, and myself are planning to go into the diving business together after our discharge and would like any information you might have.

Richard R. Pleet RMSA  
FAW-6 Navy 955  
c/o FPO, San Francisco

We would suggest you contact the diving schools listed in Skin Diver Magazine. They maintain up to date files on job opportunities in the diving field.

. . . I am interested in getting any information and specs on fiberglass tanks of reported French manufacture. I would also like to see some detailed articles on foreign equipment in Skin Diver.

P. Todd Foster  
500 N. Oleander Ave.  
Daytona Beach, Fla.



### Diving Newlyweds Get Guard of Honor

Noel Lankshear, Treasurer of the New Plymouth Underwater Club in Plymouth, New Zealand, popped the question to Miss Ann Gibson of the same club. She said yes and the wedding was planned. The above photo is submitted as evidence that the New Plymouth Underwater club doesn't let a marriage between its members pass unnoticed. With a guard of honor formed by spear holding club members, the bride and groom leave the church followed by club member best man Don McDonald and club member bridesmaid Shirley Williams. The groomsman and second bridesmaid were also club members, though we haven't yet received word on the officiating minister.

Photo was taken by Kenneth Taylor of Kenneth Taylor Studios . . . that's right, also a club member. ☞

## A Master Diver Tells You His Secrets

Two new books by world-famous E. R. Cross. Thirty years of experience and three years of research have gone into these new books.

### ● Introduction to Skin Diving

Advances an original, important concept—the Triangle of Safety.



60 pages, profusely illustrated . . . \$1.50 per copy

### ● Advanced Skin & Scuba Diving

Why is skin diving potentially more dangerous than scuba diving? How can skin diving be made safer?

These are only two of the vital subjects discussed in this book which describes diving in a completely different, modern manner.

92 pages, profusely illustrated . . . \$2.00 per copy

Send check or money order to:

**Marine Research Publishing Co.**  
Dept. 10, P. O. Box 8217  
Honolulu, Hawaii

Dealer inquiries invited.

## \$\$\$ SAVE \$\$\$

We have 40 Rhino Hide tanks complete with non-reserve valve and Rhino Hide back packs that were used by the National Association of Underwater Instructors four times in their recent course in Fort Lauderdale. These tanks sell for \$66.95 new.

We offer these tanks to you at tremendous savings along with new brand name regulators. All tanks and regulators carry new unit guarantees.

	Regulator	Tank & Regulator
Two hose two stage Navy approved regulator . . .	\$90.00	\$109.90
Two hose one stage regulator . . . . .	65.00	92.40
Two hose one stage regulator . . . . .	50.00	81.90
One hose two stage regulator . . . . .	70.00	95.90
One hose two stage regulator . . . . .	35.00	71.40
One hose two stage regulator . . . . .	37.50	73.11
Two hose one stage regulator . . . . .	52.50	83.75
Two hose two stage Navy approved regulator . .	82.00	104.25
Two hose two stage regulator . . . . .	67.50	92.40

RESERVE VALVE, IF DESIRED, IS \$20 EXTRA  
(Please Specify)

All other regulators at same low prices while present supply lasts—ACT NOW! Please enclose check or money order with order. Freight will be C.O.D.

**HARBOR BEACH TACKLE and MARINE**

2240 S.E. 17th St. Fort Lauderdale, Florida  
National Distributors For Rhino Hide Tanks and Back Packs

## BOOK

### SKIN and SCUBA DIVING

Everything that you need to know about skin diving. Over 200 pictures.

50c copy

**PURGING VALVE**

will now

fit ANY mask!

SPECIFY IF NOT U. S. DIVERS WRAPAROUND

- ★ Installed WITHOUT special tools
- ★ Any valve installed in minutes



WAS \$2.95

NOW

\$1.95

- ★ Positive check action
- ★ Exhausts all the water
- ★ Guaranteed non-corrosive construction
- ★ Permits de-fogging of the faceplate by purposely flooding
- ★ Easily installed by the diver in minutes

DEALER INQUIRIES INVITED

**AQUA SPORT DIVERS**

16015 EAST 8 MILE ROAD  
EAST DETROIT, MICHIGAN



## The Skin Diver's Bible — BASIC SCUBA

By Fred M. Roberts

Introduction by Edgar End, M.D.

Benefit from expert advice on the operation, maintenance and safe use of every make of SCUBA. Learn how to select the most sensible type of equipment for your particular purposes. Covered in authoritative detail are: theories on gases, pressures, etc.; how to avoid diseases; a full course in SCUBA with instructions on diving, clearing masks, etc.; underwater photography; spearfishing—all possible phases of skin diving discussed by a competent sportsman. 89 illustrations. 23 charts. \$8.50

## AMERICAN SEA SHELLS

By R. Tucker Abbott. For the first time in one book, over 1500 different varieties of sea shells and mollusks of both the Atlantic and Pacific coasts of North and Central America discussed and completely and exquisitely illustrated in color and black and white. 560 pages. \$13.75

At your bookstore, or write  
**D. VAN NOSTRAND CO., INC.**  
120 Alexander St., Princeton, N. J.

ORDER NOW FOR CHRISTMAS!

# NOW there's a

## BayleySuit

### for YOU!

Choose from  
many models of  
custom-made  
wet or dry  
suits

Up-to-date features  
make BAYLEYSUIT  
today's most wanted  
suits... designed to  
fit YOU... and  
your pocketbook.

Send TODAY for  
FREE illustrated brochure.

## BayleySuit

P. O. Box 99  
Fields Landing, Calif.  
Hillside 2-5305



## Depth Compensated Ear Protector Tested

Recently, both pool and ocean tests were conducted with a new depth compensating ear protector. Well-known Florida diver Woody Thomas conducted the tests for inventor Linford Gardner. Resembling cups which fit over each ear, the devices are connected by a tube to the diver's regulator, and are said to be excellent for divers with perforated ear drums or with compensating problems since no water is supposed to reach the ear.

The exhaustive tests covered depths to 230 feet in the ocean and procedures including allowing water to enter beneath the compensating cups. Different positions of the head and body were tried and Mr. Thomas even experimented with emergency procedures such as a breakage in the pressure line from the regulator. All phases of the test were reported satisfactory by Thomas, who finally called the compensating device an "excellent piece of equipment."

The equipment can also be used, according to Thomas, by divers who suffer cold water pains in the ears, since the ear canals normally stay dry.

Further information can be obtained from the inventor, Mr. Linford L. Gardner, Scuba Queen, Inc., P. O. Box 6397, Orlando, Florida.

## Diving News To Merge With SDM

Diving News, the free monthly tabloid newspaper edition of Skin Diver Magazine, will now be published as a part of the March, June, September and December issues of SDM, instead of the monthly separate entity it is currently.

After ten months of continuous publication, Skin Diver Publications Inc. has decided to cease printing the edition in its present form with the October 15, 1961, issue, as it has proved economically unfeasible to continue.

Diving News will now be a sixteen page insert printed four times a year. The insert will retain the title of Diving News and will be devoted to publicizing club and council activities, spearfishing meets, the Divers Calendar and other features that have been in the monthly newspaper.

This 16-page insert will be published on the last month of each quarter starting with the December, 1961, issue of Skin Diver Magazine and will be delivered only to SDM subscribers.

Divers Bulletin Board will be reinstated in December as a monthly part of Skin Diver Magazine. This feature will be a service to individual divers wishing to sell diving equipment, etc.

Diving News as an insert to Skin Diver Magazine will carry no advertisements, only news and features.

## DIVERS FLAG

IN FULL COLOR FOR  
TIE TACK OR  
LAPEL PIN



also 3" SWISS EMBROIDERED  
EMBLEM—ALL \$1.00 EACH

## AUTO-ANTENNA PENNANT—75c



We carry a complete  
line of jewelry and  
exclusive novelties.

All Jewelry Items Such As  
Lighters & Money Clips with Flag (\$2.50 Ea.)  
Engraved with Your Name FREE!

COLOR FAST . . . IN ANY WATER



SWISS EMBROIDERED EMBLEMS

Guaranteed fast color, for wear on



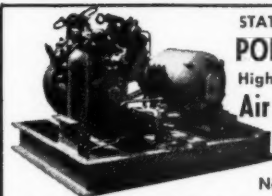
swim suits, sweat-  
ers, jackets, etc. Per-  
fect for clubs and groups of all sizes in  
quantities of 25 and up . . . Write for  
information and ask about our  
multi-colored club lapel pins, decals.

CASH, CHECK, OR MONEY ORDER. California  
residents add 4% tax. All postage prepaid.  
SEND 25c FOR COMPLETE CATALOG (refunded  
on first order).

## Rogers Emblem

MANUFACTURING COMPANY

2450 So. Main Street, Los Angeles 7, Calif.



STATIONARY  
PORTABLE

High Pressure  
Air Plants

Fast  
Safe

Not a Toy

- Ingersoll-Rand and Worthington compressors, 3 stage ready to charge cylinders.
- Equipment and plans for Do-It-Yourself-The-Safe-Way.
- High pressure compressors, tubing, fittings, valves, gauges, aftercoolers, moisture traps.
- Filters, new patented, guaranteed to clean air down to 50 Parts per Million.
- All equipment engineered according to A.S.M.E. code of high pressure piping.
- Equipment built for service: write for details.

McWHORTER ENGINEERING CO.

P. O. Box 9014 • Birmingham, Alabama

## WEIGHT MOLDS

MOLDMASTER MARK 10  
Special Cool Handle and  
Large Rap-out Bosses.  
Makes weights variable  
from 5 lbs. to 10 lbs.  
(Other size Moldmasters  
also available.)

\$11<sup>95</sup>



WESSMAN  
MANUFACTURING COMPANY

Creative Products for  
Sport, Science and Salvage Diving  
2156 Pacheco Street MU 2-3840 Concord, Calif.



## Stan Waterman's "Water World" To Be Shown In Illinois

Outstanding attendance is expected at the West Suburban YMCA in La Grange, Illinois, on November 4, 1961, for a showing of Stan Waterman's famous film, "Water World." Two separate performances are scheduled with an after-show session with Mr. Waterman for anyone who cares to stay. The Atlantis Divers Club will sponsor the event, which will be promoted throughout the Illinois Council in addition to TV and newspaper announcements.

Tickets for the showing will be \$1.25 and proceeds will be used to further the Atlantis Divers training programs. In the past the club has given support to the United States Spearfishing Team and aided in providing a recompression chamber for Chicagoland divers. Further information on the event can be obtained from Phil English, the event chairman. »

## Pacific Coast Skin Diving Show

Remarkable success of the first annual Pacific Coast Skin Diving Show August 4 through 6 at Santa Monica's Civic Auditorium will result in major expansion of the next exposition, executive producer Harold Dunnigan, Jr., said today.

Dunnigan reported that public interest in commercial displays and crowds of thousands of spectators which resulted in occasional auditorium traffic jams were responsible for the changes in concept.

The 1962 show will definitely be an extra

day, he said, to accommodate exhibitors and the public with the four day exposition which will be held at an earlier date than this year's August schedule.

"I think we underestimated the sports enthusiasts desire to see all available underwater gear and devices under the one roof—and to add to or replace their present equipment," Dunnigan said. "The 1962 Pacific Coast Skin Diving Show will feature a new layout of the auditorium for a better traffic flow and a greater emphasis on diving exhibitions."

Dunnigan said that a big surprise to many was the popularity of skin and scuba diving exhibitions and demonstrations of equipment, which many times had a greater audience than the purely entertainment aspects of the exposition.

Best description of the 1961 Pacific Coast Skin Diving Show was that it was a "complete" show, he said. While exhibitors were limited to displays concerned solely with skin and scuba diving, examples of everything connected with the sport were represented.

In addition to the latest in masks, flippers, snorkels, and other sports gear, other exhibits featured electronic communications and sounding devices, gold dredges, signal equipment, air tank compressors, recompression chambers, and watersports publications.

Transportation devices included pressurized and free-flooded submarines, underwater propulsion devices, surfboards, boats, and amphibious aircraft.

Other popular exhibits included a 40 aquarium display of marine life, a marine art exhibit, and undersea artifacts museum.

Dunnigan said that dates for the June 1962 Pacific Coast Skin Diving Show would be announced in the near future. »



### UNDERWATER SOCIETY OF AMERICA

Decals .....	\$ .50
Patches .....	\$1.50
Lapel Button .....	\$2.00

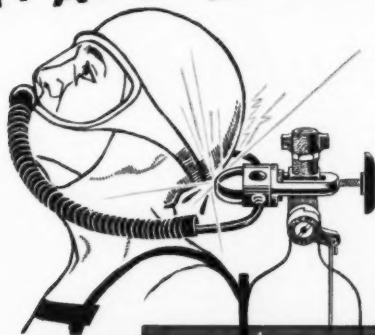
Write for prices on quantities.

SEND TO:

### UNDERWATER SOCIETY OF AMERICA

P. O. Box 724, Sta. A  
Champaign, Illinois

# DON'T ABUSE YOUR HEAD! — USE IT!



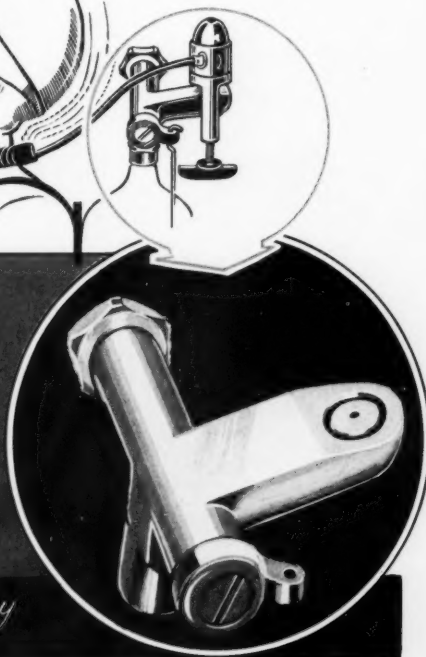
Try a new DEMONE DLJ Valve that allows you to move your head about with greater freedom—allows water entry with greater safety.

Sold only through  
Pro Diving Shops—  
\$12.50 to \$34.00



When the DLJ or DLK Valve is used with a DEMONE MARK I or Mark II regulator you have the ultimate in design and performance especially with DEMONE'S new reserve mechanism that will not allow accidental reserve action. The DLJ and DLK Valve was designed, as all DEMONE Products are, with the safety of the diver in mind.

**Demone Manufacturing Company**  
**Oak Lawn, Illinois**



"FROM  
BIRTH  
MAN  
CARRIES  
THE  
WEIGHT  
OF  
GRAVITY  
ON  
HIS  
SHOULDERS

○  
○  
○



**JACQUES-YVES  
COUSTEAU**

○ ○ ○

# MANFISH

By

**ROSS R. OLNEY**

(Photos by Les Requins Associés)

... He is bolted to earth. But man has only to sink beneath the surface and he is free. Buoyed by water, he can fly in any direction—up, down, sideways—by merely flipping his hand. Underwater, man becomes an archangel."

So said Jacques-Yves Cousteau, first of the menfish and the man who started it all. With his invention of the famed "Aqua-Lung," his book and motion picture, "The Silent World," and his many and varied research projects,

Jacques-Yves Cousteau became diving's foremost philosopher as he led scientists and devotees into the magic of the underwater world.

Born in Saint-André-de-Cubzac, near Bordeaux, France, because his parents were born there, he was immediately taken home to Paris where he spent his young life. At least that part of it when he wasn't traveling with his father, and it turned out he was traveling more often

than not, including a year long visit to the U. S. A. Young Cousteau was no athlete. For six years he suffered from chronic enteritis and in his teens contracted anemia. The doctor's decision on this young man . . . he must, henceforth, avoid all strenuous activity.

Jacques-Yves Cousteau . . . no activity! Difficult to believe, viewing his life in retrospect. But the doctor's advice was not heeded, though his early life shows in his face and body. He is thin, his body gnarled, his face hollow-cheeked with a prominent nose . . . physically he appears carved and chiseled, almost crushed and twisted into shape by the great pressures of the sea he loves so well.

He can be comical, and when he is, he is hilarious. But when this man is serious, he can hold an audience's rapt attention with his commanding French clipped voice and his large, penetrating eyes . . . and his deep belief in his subject.

Cousteau graduated second in his class from the Naval Academy, then went on to flying school where he was on the verge of graduating as a pilot. Diving beneath the sea was of no concern to this French aviator, except perhaps as a sport for spare time.

Then, on a dark night on a winding road, an event took place that affected not only Cousteau's life, but the life of millions of others since. He had taken his little Salmson sport car for a fast spin in the mountains. Suddenly, the lights flickered out, with the car moving fast.

When the plunging car finally stopped, Cousteau's left arm was shattered, his right paralyzed. The left arm doctors insisted, must be amputated.

"You are the owner of your own body," Cousteau argued. The arm was set and his life in the ocean began. Constant swimming, he found, was helping to rebuild the use and strength of his arms. The swimming led naturally to diving experiments, one of which nearly cost this pioneer his life when he attempted to use an oxygen lung at too great a depth.

World War Two goose-stepped into France and Cousteau, still in the Navy, served as a gunnery officer aboard the French cruiser, "Dupleix." But the war machine of the enemy was too powerful and France was forced to surrender.

Cousteau, still searching for adventure, went underground.

His courage and daring again became apparent when

*(Continued on Next Page)*

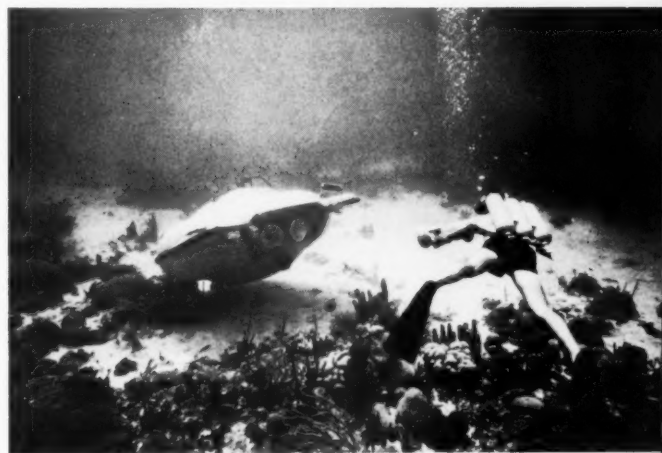


Cousteau receives the gold National Geographic medal from President Kennedy for his outstanding work in oceanography.

Left to right, Ross B. Olney, Jacques-Yves Cousteau and Editor Jim Auxier during a recent Cousteau visit to Los Angeles.



Denise, the diving saucer, is lowered from the after deck of the Calypso. Note occupants peering from the reinforced viewing ports of the deep diving craft.



Captain Cousteau puts his invention through her paces. Its maneuverability allows it to follow him around the floor of the Mediterranean like a puppy dog.

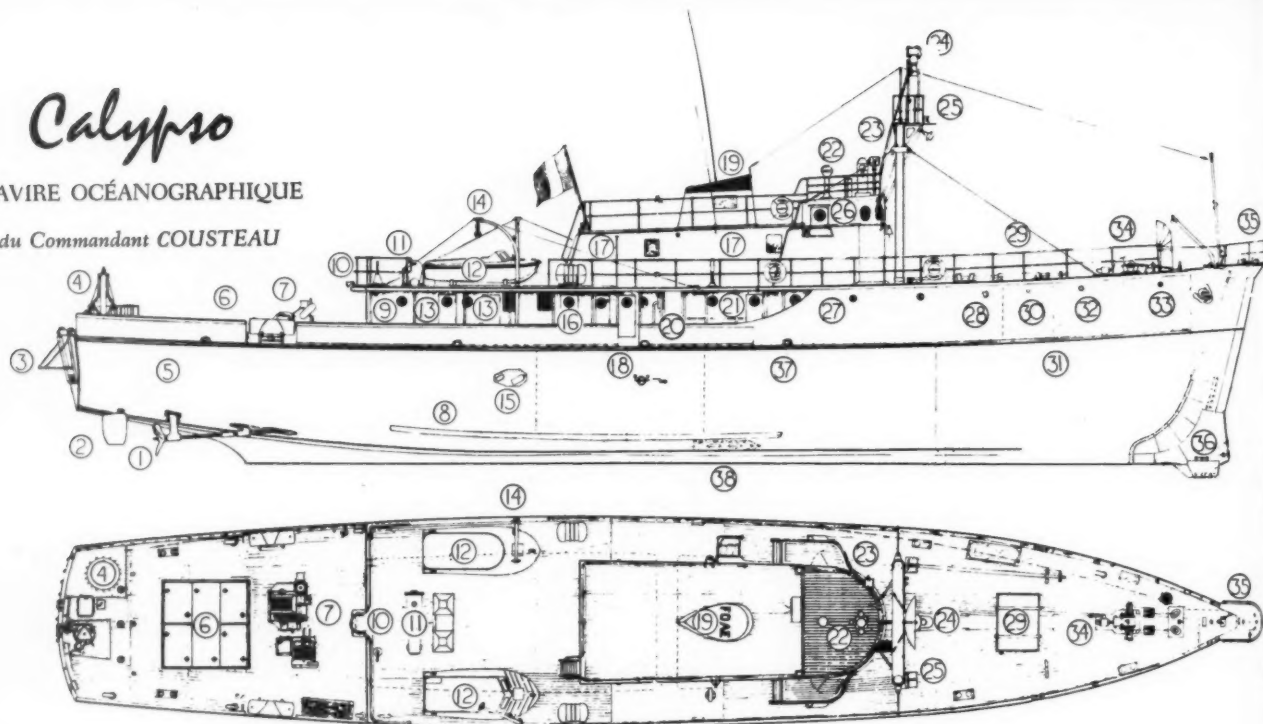
The Amphitrite is an air filled boat designed to carry Denise. It can be flown to any area, with Denise, in a medium sized cargo plane and be quickly ready.



# Calypso

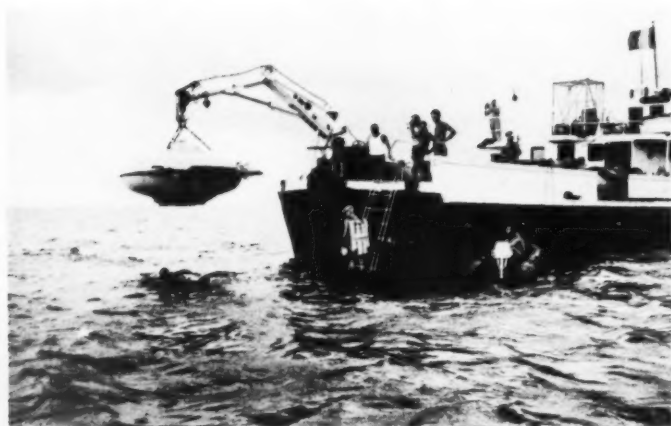
NAVIRE OCÉANOGRAPHIQUE

du Commandant COUSTEAU



## NUMERICAL KEY TO CALYPSO FEATURES

- |   |   |
|---|---|
| 1. Twin Screws  | 20. Transverse Alleway                                |
| 2. Twin Rudders   | 21. Cousteau's Quarters                               |
| 3. Drawbridge Diving Platform                               | 22. Compass Binnacle and Gyro-Repeater                |
| 4. Yumbo Hydraulic Crane                                    | 23. Searchlight                                       |
| 5. Afterhold  | 24. Radar Antenna                                     |
| 6. Main Hatch   | 25. High Observation Bridge                           |
| 7. Oceanographic Winches                                    | 26. Bridge  |
| 8. Engine Room  | 27. Two-man Cabins                                    |
| 9. Diver's Room and Shop                                    | 28. Lab   |
| 10. Winchmaster's Pulpit                                    | 29. Forward Hatch                                     |
| 11. Recompression Chamber                                   | 30. Passage and Ladder to Forecastle                  |
| 12. Metal Launches  | 31. Forecastle—Individual Cabins for Each Crew Member |
| 13. Two-man Cabins Senior Members of Company and Scientists | 32. Washroom and Laundry                              |
| 14. Davits  | 33. Paint Locker                                      |
| 15. Engine Exhaust Vents                                    | 34. Anchor Winch                                      |
| 16. Salon   | 35. Hatch to Underwater Observation Chamber           |
| 17. Laboratory Electronics and Chartroom                    | 36. Underwater Observation Chamber                    |
| 18. Galley  | 37. Photo Lab, Machine and Carpentry Shops            |
| 19. Dummy Funnel—Storeroom                                  | 38. Sonar Transducers                                 |



"Denise," Cousteau's famed diving saucer, is lowered from the rear deck of the Calypso with Cousteau himself controlling the winch. Crewmen enter the little diving craft before it is put into the water. Presently under modification by Cousteau, the saucer will soon extend its 1000 foot depth limit.



# MANFISH

(Continued from Last Page)

he took a party of men dressed as Italian soldiers into Italian headquarters at S'ete. Cousteau boldly marched at the front masquerading as an Italian officer. The squad spent four hours inside photographing every top secret code book and paper they could lay their hands on, then escaped.

With the Germans occupying France, Cousteau met Emile Gagnan, brilliant young French engineer, and the two began work on a simple, fool-proof underwater breathing apparatus. Top German scientists were working on the same project, knowing it would be a tremendous weapon in naval warfare, but they paid little attention to the two non-descript Frenchmen who daily headed for the ocean with their strange compressed air bottles and attachments.

Cousteau perfected his "Aqua-Lung" near the end of the war, and was soon granted government funds to continue his oceanographic research, henceforth aboard the converted minesweeper, "Calypso."

His work since then is well known. He wrote "The Silent World" which has a world wide sales record of over 5,000,000 copies. The motion picture which he made and called by the same name is famed for its underwater grandeur and exciting story content. Famed also for awards it won, including a Hollywood "Oscar," which the Academy of Motion Picture Arts and Sciences awarded the film in 1957. "The Silent World" also captured the Cannes Film Festival Grand Prix.

His development of the "Aqua-Lung" is also very well known. American licensee and distributor of this Cousteau-Gagnan equipment is U. S. Divers Company of Santa Ana, California.

Jacques-Yves Cousteau is a lover of wrecks, particularly ancient wrecks, many of which his company has discovered and conducted salvage work aboard. On the floor of the Mediterranean, he and his team of divers discovered the remains of a 2,200 year old Greek cargo ship. They brought up much of the ancient cargo.

"A dead ship," according to Captain Cousteau, "is the house of tremendous life . . . the mixture of life and death is mysterious, even religious. A sense of peace and mood that you feel on entering a cathedral."

Cousteau, whose hobbies include painting and accordion

playing, is presently surrounded by a confusing web of profit making, nonprofit making and governmental activities. Inventor, Director of Monaco's Museum of Oceanography, film maker and scientist are Cousteau's professions, along with control over all "Aqua-Lung" patents. His most recent invention is a diving saucer he has named "Denise." Powered by electrically controlled jets of water, Denise is capable of carrying two men to a depth of 1,000 feet. Carried either on the after deck of the Calypso or in its own inflatable "Amphritrite," Denise is being redesigned to descend to 3,000 feet and Cousteau feels that even that depth is not the limit of the ingenious little diving saucer.

One of the greatest feats of the famed Frenchman came in 1958 when he actually anchored his research ship, Calypso, in 25,000 feet of water. This accomplishment, which exceeded all other deep water anchorages by over a mile, was done with a thin thread of nylon.

His pioneer work in deep water photography, in collaboration with Professor Harold E. Edgerton of the Massachusetts Institute of Technology, and his oceanographic explorations sponsored by the National Geographic Society, have greatly advanced man's knowledge of the oceans and made possible the mapping of some of the unknown sections.

Cousteau is called "the father of scuba diving" by divers the world over. What does he say of himself and his diving?

"I have no home . . . my clothes are spread all over the world." The nearest thing to a home for this world traveler is the sparsely furnished cabin in Calypso. He is a firm believer in a rigorous training course for anyone with a desire to follow him into his world underwater, and advocates proper training to the point of putting newcomers to his own group through rugged days underwater.

Captain Cousteau is married to a pert, vivacious blonde named Simone and has two sons, both in their early twenties. Mme. Cousteau accompanies her husband on most of his expeditions. She says, "When we're too old to go to sea, we'll get ourselves a nice little fireboat and sail about some quiet harbor."

As for the future of diving? Jacques-Yves Cousteau is another of the believers in the much talked about operation to put gills in man. In this way man can enter the underwater world completely unencumbered by the devices of his own world . . . and diving will have taken the final gigantic step

Photo at right was taken from a direct underwater telecast on "Eurovision" international television network by Captain Cousteau. Future divers, perhaps some of whom will wind up in Cousteau's crew, are shown in training. The equipment is smaller, but the boundless spirit is obvious in the youngsters.





*The Wreck of the...*

# TRINITY LEDGE

By E. BRITTON

**SHIPWRECK!!**

The dreaded word spread  
along the coast of

maintaining order and discipline saved the lives of those aboard.

But what of the cargo? Especially the rum! Local fishermen, not wanting to see a good thing go to waste, managed to salvage their own private stock, and gay days and nights followed, with many toasts to the bounty of the Cobequid.

The savage sea finally conquered the steel and the ship broke up and slid beneath the waves, leaving as its legacy the tale of its disaster.

A sense of adventure, exploring the unknown, and delving into the past . . . to a skin diver a shipwreck offers all these possibilities. The opportunity of diving on a wreck arose for myself and my fellow members of the Hamilton Sub-Mariners diving club this past summer, while we were vacationing in Nova Scotia. The name of the wreck? The Cobequid!

On a bright sunny day in July we started out on what was to prove a memorable dive. We chartered a sport tuna fishing boat and at 12 noon we left the dock at St. Mary's and headed for Trinity Ledge.

Our arrival at the site of the wreck had been carefully calculated to the slack tide. It was extremely important that the tide be taken into consideration, since the strength of the incoming and ebb tide would, or course, be of potential danger to a diver.

We proceeded on course and began to don our wet suits, which would enable us to dive in comfort in the rather chilly (42°) water at Trinity Ledge.

At last we arrived, and the Captain anchored as near as possible to the buoy which marked the wreck. The sea, which had been fairly rough on the way out, was now fortunately relatively calm.

No time was lost in getting into the water as the estimated time of the duration of the slack tide was only slightly over an hour.

I dropped backwards holding my mask and mouthpiece hard against my face, and felt the familiar shock and impact of the cold water. I drifted down several feet, and looking up saw the hull of our boat and three or four feet beyond, my diving buddy, Lin Comeau. A few fin kicks and I joined him. Visibility was astonishingly clear, at least 40 to 50 feet.

Lin and I turned and clearing our ears, drifted down into a luxurious forest of sea kelp, resembling giant palm tree leaves. This kelp grows to lengths exceeding forty feet. It was a beautiful sight to see them bending and moving gracefully with the motion of the water, the schools of silver pollock and other fish leisurely pursued their way of life and calmly accepting us as a part of it.

On the bottom at about 45 feet lay the twisted metal wreckage of the Cobequid. No longer was she recognizable as a ship. I began hastily to look it over, hoping to find some small pieces yet intact and identifiable. In particular, we were hoping to perhaps come across one of the ship's bells.

I was having a glorious time when suddenly, as I turned to follow Lin, I felt as if a giant hand had closed around me, holding me suspended in mid-ocean, unable to move up, down, or sideways. I realized after a few seconds that I was caught by one of the giant kelp leaves. I was now in a predicament as I did not carry a knife. (I now have one!) Now the old adage of "never dive alone" was proved. Lin upon turning to look for me—came back and with his knife freed me of the entanglement.

We continued exploring, with myself by now in proud possession of one of the brass portholes. Suddenly Lin stopped, and giving me the thumbs up signal to surface began to ascend.


On the surface an absolutely astounding sight awaited us. We were completely surrounded on all sides by an impenetrable circle of fog and just barely visible, was our boat with a very anxious Captain beckoning us in.

When we were aboard, I learned what had happened. Without warning the fog had closed in so fast that the Captain upon seeing we were drifting away from the boat (we were trailing an inner tube on the surface) had no time to take in the anchor. He had tied a buoy to it and starting the boat's engine as a signal, had come about and followed us immediately to keep us in sight.

It was the sound of the engine that had warned Lin to surface. I had not even been aware of it and had wondered why we had surfaced when I knew that we had about 15-20 minutes air left. Although there was a discernable surge of the incoming tide, it had not yet become strong enough to bother us.

When I saw that fog, I was darned glad we had surfaced! For although Lin assured me that we would eventually have been found, I for one did not want to be lost in that fog in the Bay of Fundy.

It was a real tribute to the skill and experience of the skipper of the boat that we made it back to port without further incident. He knew where the bell buoys were, and was able to navigate back strictly by his sense of hearing.

The tangible momento of my diving adventure, the brass porthole of "The Cobequid", has a place of honor in my diving collection. 

Nova Scotia. It was January 14, 1914. Weather conditions were the worst possible and a blinding snow storm was raging with visibility zero.

The name of the ship in distress was "The Cobequid," a Royal Mail boat with a cargo of passengers, mail and rum, inbound to St. John N. B., on its regular run from the British West Indies. It was a fine steel ship with brass fittings, and now, due to a slight error in the reckoning of the Captain, it had come to grief on Trinity Ledge, seven miles off Cape St. Mary's, N. S.

An "S.O.S." was sent out giving the exact position of the wreck as "Gull Rock" located six miles west of Trinity Ledge. All passengers and members of the crew, were sent to the wheel house for safety and rescue boats immediately set out from the mainland.

The area of Gull Rock was searched for two days without success, and it was not until the third day, when the storm had cleared, that the ship was sighted. It had run aground on the submerged rocks of Trinity Ledge and although the ship was badly broken up, all the passengers and crew were rescued safely. It might be noted here that the Captain was commended for his part in averting panic, and by



# ALASKAN GOLD

# THE HARD WAY

By BILL HUCKINS (Photos by Author)

RUSHING RIVERS...

FREEZING WATER...

PRIMITIVE CONDITIONS...

STILL THIS CREW DREDGES UP "COLOR"



A SPRINKLE of raw gold, small nuggets but big enough to pick up in your fingers, lay in the carpet on the bottom of the separator box. Gathered around the "color" were Joe M. Adams and his crew, matter-of-factly evaluating the "take" and checking it against the time spent in getting this sample batch from a fresh location.

The occasion was of more importance than usual. This was the first work done with a new eight inch dredge that Joe had waited a long time to get. Things come slowly to Alaska, and Joe had been patient, but after a year or more of all weather diving in the fast and silt filled streams of the Kenai Peninsula he knew that big equipment, swift water, and back breaking work was the answer. Risking his neck in spots where no other divers would go, he had made out quite well with conventional small dredges, but the chances taken were enormous





Russell Hall steadies dredge as Joe Adams prepares to submerge in swift water.

Details of compressor are shown as Adams and Hall struggle with dredge.



compared to the rewards, and big returns only possible with big gear. Now with this much color showing after only twenty minutes of dredging it would seem that the pay-off was at hand.

The way to this pay off is fearfully hard and dangerous to the qualified observer.

The claim is in a deep canyon with a wild gray stream tearing down through its twisted gorge. Down under this tumbling stretch of water Joe puts in his long day's work. Starting around four in the morning, and often working until ten or eleven at night, he methodically digs out the sand and rock in the bed of the stream, taking for himself and his team the gold it contains.

Conditions here are such that few experienced divers would work in them at any price. Current speed reaches fifteen knots with a minimum of about seven. Depths are to thirty feet and visibility averages from zero to four inches. Sometimes it's ten feet through the gravel to bedrock with the

possibilities of cave-in accentuated by the hammering current.

This is a glacier stream with a temperature of thirty-three degrees. It contains moving boulders and chunks of shale from which repeated blows have battered Joe's mask and regulator out of shape. More than one hundred pounds of lead on a double belt are needed to hold him down in position. Water pressure has on occasions pushed the glass out of his mask.

The quarter inch neoprene suit he wears has been patched and re-built. He wears through his flipper-slippers in a few shifts, and gloves need constant replacing. Fittings on his dredges are smoothed and padded to keep them from cutting into his shoulder as he rides the rig, slamming and bucking in the current. To maneuver Joe has to claw his way like a cat on a graveled tin roof, held upstream by a singing cable. Here fins would be out of the question. To be torn loose from the dredge and cable would be to tumble headlong down the rocky gorge with death a likely result\*. The point

was brought home when on one occasion an airplane innertube attached to the end of a long line got away, and it took all hands plus a turn around a tree to drag it out of the main current.

Spectacular as is this man's performance, this is far from being a one man show. Joe Adams is primarily an organizer, and it is evident in the layout of his "diggins." On a wooded mossy ledge above the canyon stands a neat cabin surrounded by tents, machinery and diving equipment. There is a shallow well, drying lines for suits, and storage facilities for food and tools. A well worn path drops down to the river where the dredges and flotation gear are rigged. A crystal clear little side stream provides washing water for the separation process.

Each team member has his well rehearsed part to play in the work. Nearly all the dredging is done by Joe, (Continued on Page 57)

\*Ed. Note: Since this article was written a gold diver did lose his life in Joe Adams' area by being swept away in the strong current.



The separator box is full and the two men come ashore to check their results.



Happy smiles of crew indicate hard work has paid off . . . color gleams from box.

# DIVING IN

A black and white photograph of a diver in a lake. The diver is in a horizontal position, head down, with arms extended forward and legs slightly bent. A trail of bubbles follows the diver's path from the surface down into the water. The water is dark and textured, with some light reflecting off the surface. The overall mood is serene and adventurous.

*Sure the Swiss are mountain climbers . . .  
but hidden away in those high mountains,  
are Lakes*

# Switzerland

By WALTER A. BERTSCHI

Photos by Charles Knigge

**T**HE overall movement to promote the sport of diving in Switzerland is comparatively new and only within the last few years has experienced a very remarkable development. Initially only small diving group existed, each working separately of the other. Soon, however, the need and advantage became apparent to encompass these minor groups into an organization known since 1957 as the "Swiss Underwater Federation" (SUV). When the C.M.A.S. (World Underwater Federation) was founded in January 1959 the SUV became part of that international organization.

Seventeen Swiss clubs are now members of the SUV. As of today only two more clubs still remain independent. Switzerland, as the country of four official languages, is unique when clubs or organizations are formed since the members come from different speaking areas of the country. Meetings of the SUV are held in French, consequently continuous translating has to take place into Italian or German, for instance, to make all members aware of the business at hand.

The activity of the clubs centers around the diving education of its members as well as the organization of travels and other social events.

Since the lakes in Switzerland, unfortunately, are extremely dirty through sewer infiltrations visibility is very limited. Exceptions are the lakes high in the Alps which are often crystal-clear. Contrary to these conditions in the Alps are those in the lake of Zurich where, at a depth of only 10 meters (30 feet), we already find complete darkness. All these conditions require a special and careful education in diving. Requirements for Swiss Diving Certificates are adjusted to those presently enforced by the F.F.E.S.S.M. (French Diving Federation).

As in most of the lakes we find very specific layers of different temperatures within which a temperature drop of sometimes 10° C 18° F) is experienced within distances of only a few inches. It is necessary to dive even during the summer months utilizing protection suits. Many times the temperature at depths of 50 to 70 feet drops to 40° F.

In Switzerland special emphasis is placed in a thorough education of 'skin diving' with the cities of Zurich and Bern considered the leaders of the groups. Switzerland has established its own official testing certification program which encompasses a total of 33 individual exercises. Graduates are entitled to wear two insignias: the silver insignia testifies that the wearer has thorough knowledge and has perfected the diving technique while the gold insignia identifies the wearer as an instructor in skin diving. Due to the success of such an intensified program, Switzerland at all times has first class divers who can participate in the World Underwater Spearfishing Competitions, even though it is not situated at a seashore and knowledge or experience of sea life is very limited. Some

*(Continued on Next Page)*



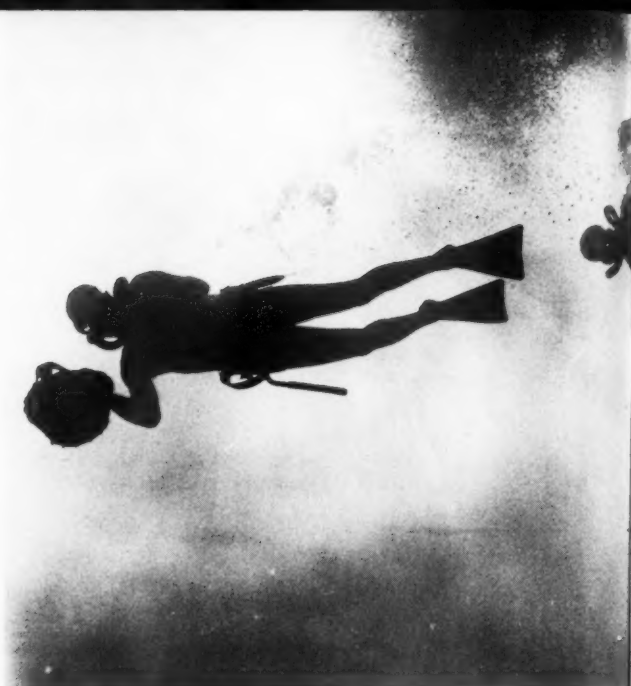
Above, Ewald Gassner, diving instructor, hangs suspended near the bottom of a crystal clear Alp lake. Below an instructor and student demonstrate a necessary diving technique, buddy breathing, in a ninety foot ascent.







Above, Swiss divers are on an expedition at 120 feet. Above right, Swiss divers collect marine animals and shells in the Tyrrhenian Sea of Italy as the sun beams down through the surface. Training in the winter is shown below as divers enter the frigid waters of Lake Neuenburg.



*(Continued from Last Page)*

of our divers are able to hunt in depths of 65 to 80 feet.

Education in scuba is given partly in indoor swimming pools, partly in the lakes. Every member can, after completing the education series, pass Test Number One. These tests are conducted according to rigid rules. Additional difficulties are, of course, the poor visibility and the cold water which becomes evident when changing breathing apparatus with another diver at a depth of 30 feet or when removing the equipment at depths of 20 feet with subsequent surfacing and an immediately following dive during which the gear has to be located again. Even mask-clearing in extreme cold water is not exactly ideal.

In addition to the education in diving, numerous excursions to lakes within Switzerland and to the Mediterranean Sea are organized. Also we go to our lakes high up in the Alps where the water, even though ice-cold, permits the best visibility. Fish are encountered there which do not shy from divers but which can actually be fed by them. But even the lakes with less clear water reveal many interesting things. It is always a special attraction to float side by side over the milky bottom of a lake and watch the play of the underwater spotlight.

Our clubs are also performing in the interest of science. The Underwater Sport Center at Neuenburg, for instance, engages in prolonged studies of archaeological formations as evidenced by findings made near the sites of the ancient lake-dwellers. Furthermore, the studies made included finding the causes of water soilage as well as sediment deposits.

For two years now the Underwater Sports Center in Zurich has participated in voluntary work done in collaboration with the two Life Guard Organizations of Zurich serving the public. Especially during the summer months, groups of life guards with divers are on alert at all major bathing resorts and their equipment is ready for instant action.

Action by life guards and divers is possible within one minute after the sounding of the alarm.

Development of the diving sport in Switzerland has shown that, since every single diving event is of such interest, membership in the clubs grows and a yet stronger organization will result. 🐟





# OCEANOGRAPHY

By ROSS R. OLNEY

[Tenth of a series on the importance  
of oceanography in the next ten years]

## International Cooperation

THERE IS A PLAN for a combined assault on the Indian Ocean, the largest unexplored area on earth. The seasonal reversals of wind direction, unknown elsewhere, provide opportunity for studying the transient state in wind driven currents in particular. This study will be conducted by the Special Committee on Oceanic Research of the International Council of Scientific Unions . . . an international group.

As in the case of the Indian Ocean, international cooperation is essential in several fields of marine research. Investigations of synoptic conditions over a broad area requiring many ships and measurements, such as the spectrum of sea level, requiring many observation posts, can be accomplished only by joint effort of oceanographers in different countries.

Specialized analytical techniques are available in only a few laboratories for certain geochemical measurements of marine samples, so international exchange of collected samples is required. The use of newer geophysical techniques, the measurement of gravity from a surface ship for example, makes the exchange of scientists necessary. Intercalibration of methods of biological collection and analysis is essential to obtain an ocean-wide picture of the productivity and distribution of populations of the sea.

A large part of the pioneering research in any science comes from individual scientists working alone or in small groups, but in a field as gigantic as oceanography, whose work table is nearly three-quarters of the surface of our world, the necessity for international cooperation soon becomes obvious.

The ultimate goal, as discussed in the most recent section of this series, is a planned survey of the world ocean. And in the foreseeable future, the United States alone cannot be expected to have the large number of oceanographic research vessels nor the scientific and technical crews to man them to conduct the comprehensive survey proposed. But among the major maritime powers, the survey could be accomplished by planned cooperation, with the United States providing about 30 percent of the ships and personnel required.

The world ocean is a continuous whole . . . its contents move freely from one area to another. Yet certain areas of the sea bottom, the continental shelf for example, are under the sovereignty of individual nations, as are certain areas of the waters (territorial seas). International cooperation becomes very important in this light. Freedom of inquiry, intellectual freedom, and freedom to conduct research in any part of the sea is required for the solving of the problem of an oceanwide survey.

Fish resources are a good example. Fish pay no attention to man-made geographical boundaries, still they are of ever growing importance to man as a food source. Conservation and rational utilization create increasingly complex international problems, particularly in the continental shelf areas, so the management of the living resources of both the high seas and coastal waters requires international collaboration.

Radioactivity in the oceans was discussed once before (Oceanography, SDM, June, 1961) but it is of such importance that it is mentioned here again. The utilization of atomic energy generates radioactive materials which

are introduced into the sea by testing, by the disposal of waste products from the operation of nuclear reactors, and by the disposal of low level laboratory wastes. Even now the deep ocean is being considered as a disposal area for high level wastes.

The adoption of standards and regulations to prevent pollution of the sea by radioactive materials is obviously an international problem. Control and cooperation, and a favorable political climate, are going to be needed when radioactivity is purposely induced into the sea as a part of tracer experiments to study physical, chemical and biological processes.

As discussed in the Ocean Resources section of this series (SDM, April, 1961), there are almost certainly commercially important deposits of minerals on the floor of the deep sea, and in the very water itself. This is aside from the obvious importance of the mineral resources on the continental shelves, which are even now being exploited. These, however, are recognized as belonging to the adjacent coastal nation at present and are not an international problem.

But the potential resources lie in what is now considered as an area of public domain . . . that is they belong to nobody, and everybody. Of course at present they are not so abundant as to present a problem of ownership. The minerals of the deep sea are something akin to the oxygen we breathe or the salt of the sea, but what of the time when international laws respecting the right of exploitation are created? With an oceanwide survey, exploitation methods may present themselves. International cooperation will be essential.

An extremely delicate problem may arise with the use of submarines in waters assumed to be under the control of another nation. Submarines will be an integral part of the proposed oceanwide survey program, still, with the threat of long range weapons, international law presently requires submarines to navigate on the surface and show their flag when passing through the territorial sea of another nation. This same law allows submarines to operate submerged and unidentified outside territorial waters, safe from attack. Without cooperation, a means of identification or a submarine surveillance system, an international mischief-maker could with complete impunity initiate a nuclear holocaust.

Three methods suggest themselves for international cooperation and control in marine sciences. The first, a non-government organization of scientists in their own professional associations. Perhaps inter-government organizations such as the United Nations will better serve or even inter-government organizations of a more restricted scope, concerning itself with oceanography alone. All three of these are active in oceanography today and could be expanded to cover the proposed survey.

With each nation cooperating in the single goal of a better understanding and use of our world's oceans, and with each nation contributing its ships and men and scientific processes on a fairly pro-rated basis, the acutely important secrets of the oceans will be revealed . . . and all of mankind will benefit.

Reference, Oceanography 1960-1970, National Academy of Sciences.

# WORLD SPEARFISHING MEET

**U.S. TEAM THIRD;  
DEL MONICO TAKES  
LARGEST FISH**



The winning Spanish team. Left to right, Bernardo Marti, Juan Gomiz, Jose Noguera.



Individual winner and new world spearfishing champion, Juan Gomiz. Gomiz, a sailor, has only been diving for three years.



Don Del Monico holds the trophy he received for taking the largest fish at the meet, placing him fifth individually.

Photos by Jim Christiansen and Eugene Shinn  
From material submitted by Gustav Dalla Valle

**S**KIN DIVER MAGAZINE is proud to announce that once again the United States Spearfishing Team has placed very near the top among the best spearfishermen in the world. At the recent world meet in Spain, which the team was able to attend through the generosity of individual divers all over the country, the United States placed third with only the host country of Spain and neighboring France topping our team.

Since 1957, with the 1958 meet in Portugal the only exception, the United States has sent a team to the World Spearfishing Championships and without exception they have placed among the top four teams. This is in spite of the unfamiliar fishing grounds our team members must dive. In 1959 one of the members of the United States team, expert spearfisherman Terry Lentz, won over every other champion present to become World Champion Spearfisherman.

This year again, one of the United States team members distinguished himself by spearing the largest fish at the competition. Don Del Monico accomplished this during the closing minutes of the competition in well fished waters, and captured fifth place in individual standings.

Training in Spain was handicapped by a very strong west wind and high surf but at the end of the first day of the two day competition, the United States team stood in fourth place. The second day the surf was higher but six more hours of spearfishing lay ahead. Finally, near the end of the second day, the United States team discovered an area within the confines of the tournament boundary that was abundant with fish. It was ninety feet deep, deeper than most of the other teams cared to fish. Here, in the closing minutes, the team pulled into third place to continue a record of never having been below third since 1959.

The United States group consisted of Gustav Dalla Valle, International Representative; "Big Jim" Christiansen, Team Coach; and team members Don Del Monico, Eugene Shinn, Bob Manicki and Ray Sharp.

Eighteen nations were represented at the World Meet, with 52 individual divers participating. Some of these

# ALMERIA, SPAIN

## AUGUST 18-19, 1961

teams were government subsidized, with expenses being no real problem . . . some were sent by clubs or other interested groups.

But not the United States team. Although many experts said it couldn't be done, the team, along with Skin Diver Magazine, wishes to thank the thousands of sportsmen who contributed money so that the team could be present at this international sporting event. You bought decals . . . and many of you bought duplicate decals when funds began to run short. You attended seminars in support of the U.S. Team. You beat the bushes to get friends to help.

YOU sent the U. S. Team to Spain . . . and you can take personal pride in our team's excellent outcome. Several months ago, Skin Diver Magazine in an editorial, stated its faith in American divers . . . and this faith, as it turns out, was very well placed.

The credit for our divers having the chance to show the world our ability goes to you who sent them there.

From the team and coaches . . . from divers all over the country . . . from Skin Diver Magazine . . . Thank You.

### INDIVIDUAL STANDINGS (First 25)

1. Gomiz	Spain
2. Noguera	Spain
3. Ripa	Italy
4. Escoda	France
5. Del Monico	United States
6. Valentin	France
7. Dames	Argentina
8. Marti	Spain
9. Shinn	United States
10. Illy	France
11. Arduino	Brazil
12. Nicoletti	Argentina
13. Santarelli	Brazil
14. Araujo	Brazil
15. Bernardi	Italy
16. Micallef	Malta
17. Falzon	Malta
18. Sharp	United States
19. Jerro	Yugoslavia
20. Calatayud	Morocco
21. Bueco	Monaco
22. Grada	Portugal
23. Armanda	Switzerland
24. Costalli	Italy
25. Sereopolus	Greece

### TEAM STANDINGS

1. Spain	533,000
2. France	372,500
3. United States	308,000
4. Brazil	298,500
5. Italy	263,800
6. Argentina	235,500
7. Malta	167,500
8. Yugoslavia	100,100
9. Monaco	96,800
10. Greece	91,300
11. Morocco	83,000
12. Portugal	73,500
13. Switzerland	71,400
14. Holland	57,000
15. Turkey	47,500
16. Australia	41,500
17. England	39,500
18. Sweden	25,700



The United States Team. Left to right, Don Del Monico, Coach Jim Christiansen, Eugene Shinn, Bob Manicki and Ray Sharp.



Ray Sharp and Don Del Monico display two of the fish they took in the closing minutes of the competition, helping the US place third.



Eugene Shinn and a part of his catch during the spearfishing competition.



Jim Christiansen, champion Italian diver Claudio Ripa and Don Del Monico.



# DRIFTWOOD

Please address all notes, letters and stuff to:  
"DRIFTWOOD"  
Skin Diver Magazine  
Lynwood, California

"The reason why so few good books are written is that so few people who can write know anything."

Walter Bagehot

Hello, you wetbacks,

As the storm clouds gather in the neurotic minds of the nervous characters creeping out onto the old jetty, the storm clouds are building in the winter sky. It's cold out here. Backward glances to the windswept beach are apparent but the colorful ones keep coming . . . and for that I'm glad. Loneliness, they say, is a frame of mind but as long as the roving romances, the harrowed husbands, the wanton wenches and the tactless teenagers keep using the bubbling coffee pot as a beacon, it'll be no problem of mine. So you keep a wary eye on each other while I delve into the crux of the matter . . .

You can't be for real, but, if you are, there's hope for the male sex after all.

JANET RONDELL  
Chicago, Ill.

Tell you what, Sweets. You send me your complete address and the next time I'm in Chicago . . .

I've just finished a very minor study of the last 34 issues of Skin Diver Magazine (with some emphasis on Driftwood), and have come to the conclusion that while the rest of the magazine has grown, enlarged and become more polished, Driftwood has remained an unconstructive, unwholesome, uninformed port of refuge from civilization. Contributors to it seem to fall into the following classifications:

1. Resentful notes by conformists whose ids have been disturbed; 2. Conniving females who are chasing their males onward in a search for Recognition and Togetherness; 3. Individualists who see sanity in your two pages; 4. The Just Plain Curious/Incredulous, and 5. Irate fishermen.

Invariably, in every issue is a note from someone (either pro or con, it doesn't matter) who states that the first thing he looks at is Driftwood.

Why?

Because Driftwood offers absolutely nothing in the way of: 1. Constructive thinking; 2. Useful information; 3. Refinement, or 4. Sanity.

What does it offer? Well, it offers a refuge from Creeping Meatballism, from Rules of the Group. This, I think, is why we turn to it firstly. Consciously or not, we know it's a place where we can relax and return to the days of the caveman for a little while, and indulge in the ridiculous. I say, long live Driftwood and foolishness! Long may they reign!

I feel better now.

BILL COUEY  
Santa Maria, Calif.

I'm not sure whether I've been complimented or insulted . . . but I'll defend to the death your right to say it.

When I first became a scuba diver and a reader of SDM my diving buddy told me you were a slob and that I shouldn't waste my time reading Driftwood. Since I was learning diving from him, I naturally followed his advice. However, when I received my latest issue of SDM one of your smart answers caught my eye and I wound up reading the whole column. He was right . . . you ARE a slob.

GARY RANDOLPH  
San Francisco, Calif.

*Anchors Aweigh, mate. Maybe I'll get lucky and you'll get recalled to active duty or something.*

Please don't imagine for one moment that I should presume to tell you what to put in your column, but, after reading the September issue, it occurred to me that it would be frightfully interesting if you were to publish a frank opinion on the Irish by that charming chap Mr. Mack Murphy of New York City. Do try and get him to say a few words on the subject, there's a good fellow. Thanks awfully.

ALAN BROADHURST  
Yorkshire, England

*What kind of interesting? Thanks how? Listen, I don't know how you feel about the Irish, but the U.S. Post Office gets fussy if you get off-color out here.*

## DEPARTMENT OF REDUNDANT RAMBLINGS

I've been reading that crazy column of yours since I got my first issue of SDM. At first I thought you were some kind of a nut or something but now, after being around diving circles a lot, I've found your ideas on the banishing of women and teenage divers are highly practicable. I've been subverted to Driftwoodism and I love it.

JOHN SURINCHAK  
Gouldsboro, Penna.

*Banishing of women . . . ? Teesh, what kind of a nut are you?*

This is it. I've willingly plunked down my thirty-five cents, and then my fifty cents, hoping that the two pages in SDM labeled Driftwood would either disappear completely or at least improve. No such luck. So, you can just cancel my subscription.

ROBERT O'BRIAN  
Lima, Ohio

*And you can just get off my jetty if you feel that way . . . and leave the coffee cup, sorehead.*

Since I've been reading your column, I'm a changed man. I agree with you on all this jazz of girls staying home and doing house type things, and leave the diving to men. They always seem to have the say on where and when you are to go diving and what you should do when you get there. Then when you do get to your favorite diving type place, they rather lie on the beach and soak up those sun type rays. They don't give a shark's fin what you do. Man, like I'm with you all the way on those degenerated gals who think they're divers, but, all in all, they are just an egg waiting to get poached. Dad, I think you are the coolest thing around besides the Michigan winter. Keep on writing those words of wisdom, man, they're the most.

ART GOMERY JR.  
Muskegon, Michigan

*Like, who put the bomb in the bomb-she-bomb-she-bomb. Seriously, thanks, Clyde.*

I know you hate this type of question, but I'm really interested. What's the legal limit on *She* urchins?

BILL GILMER  
Lake Oswego, Ore.

*You're right, I do.*

## DEPARTMENT IN FAVOR OF MORE BUXOM BROADS

After serious consideration, I'm casting my vote in favor of a "Beauty of the Month" as you suggested in October's Driftwood, and I hope you can persuade the parsimonious publishers to break loose with an award suitable to such an event in a young lady's life.

RANDOLPH MILLER  
Compton, Calif.

*Well, actually, it was put a little stronger than a mere suggestion, and Olney tells me the tightwads are loosening. And if Olney can't do it, maybe a lecherous glance at Miss November will.*





#### MEET MISS NOVEMBER

*This mixed up maelstrom of misinterpreted madness has done it again . . . witness Miss Jackie Jensen, a honey blonde with (if you care) big, blue eyes. Her hobby? Next to dipping a fin, which she does with enviable ease, is, get this, automobile racing. Yeah, like with the Monroe shocks and the Iskenderian Cams and stuff. She also draws, plays the piano, designs her own clothes, skis, dances and eats pizza pies with the experts. What more could you ask?*

*Lucky photog Jim Olsen snapped this to give us a touch of sunshine from wintry Wisconsin.*

*And we'll keep trying. Give these tired old eyes a break with a shot of your own delightful doll. If nothing more, Olney might paste it up on his office wall to make his long day in the world of paper and ink more endurable. And chances are we'll never run out of new months to lech through.*

#### DEPARTMENT TO LET SELECTED WOMEN DIVE

Believing that women are most appreciated by men when we keep our mouths shut, our ears clear and our eyes open wide in wonder and admiration, I have heretofore enjoyed Driftwood in silence. However, such was my shock at the comments to Billi Mae Barkley in the September issue that I feel compelled to step out of character and write. Darlin', I'm proud of you for blasting that biddy 'cause she won't back her husband. I feel you're absolutely right in being horrified and indignant because she objects so vehemently to her husband's plan to become a diver. But, honey baby, please don't call that poor, misguided, uninformed, narrow minded soul a "typical American wife." You have no idea how many of us wives encourage our husbands to be divers. For one thing, I know that after a hard week on the job, if my husband goes for a dive when he's back home he'll feel like discussing his day of pleasure, rather than sitting around the house like a dog or howling his lungs out.

OK, I confess my attitude stems from the fact that I dive too, but I'm beautiful, charming, sweet, understanding, sexy, and sophisticated, besides possessing a terrific personality, so with all that, couldn't you overlook the fact that my one and only fault is that I'm a woman with a passion to be underwater?

ELLY GRIFFIN  
Inglewood, Calif.

*I could, and if it wasn't for Louise McDougall . . .*

**SKIN DIVER—November 1961**

Is it possible to get a serious answer to a serious question on diving from you? Look at it this way. I'm a beginner trying to learn. I've been advised to stay away from you if I want to learn anything. I've been told that you're not even a diver but just a beach bum making a living on our sport. I say different. I say that anyone who can take diving so lightly, and continue to come up with flip answers time after time, must really be a diver of the old line who has forgotten more than most of us know. So give me a break and prove that I'm right just this once. What do you think of the one hose regulator as compared to the two hose regulator?

RON STANKE  
Toledo, Ohio

*Making a living, you say? But, OK, just this once. It is my considered opinion that regulators are definitely here to stay. Satisfied?*

That O'Keith joker was nutty as a fruit cake, Fair Dinkum. Us Kiwis down here are glad to see you guys mentioning "Down Under" occasionally. Good diving in this part of the world, not many restrictions. Just one thing before I shoot thru, that old jetty and rusty old coffee pot boiling on same, can't accept, sorry clobber. Us Kiwis are tea drinkers . . . Dinkum.

TERRY, LES, FRANK and PETER  
Mt. Eden, New Zealand

*Fair Dinkum? Clobber? Shroot thru? What is it with you guys over there and down under? First it's frightfully awful and now it's fair dinkum. Don't you sprechen zee Francois or nothing?*

Seriously now, admit it. Those letters from mixed-up women who are constantly chasing after you are downright fakes, aren't they?

RICHARD DONOVAN  
Seneca Falls, New York

*If I can just get these sexy dolls to stand back for a minute, I'll try to answer you . . .*

We've heard your opinion time and again on women divers, teenagers, star mops, alcoholics and all the other things you have been harping on for years at SDM's expense. But do you have an opinion on more serious topics such as oceanography, diving physiology, and the effects of dumping radioactive wastes into the ocean's deeper trenches?

THOMAS RASMUSSEN  
Fort Wayne, Indiana

*I do.*

#### DEPARTMENT OF STICKS AND STONES

Oh wise buddy, eternal defender of the sport and honorary keeper of the mermaids, why the hell don't you wise up and get some spice into your stuff? I've been reading the same old glop dished out by Driftwood for the past two years. The only relief I had was when the center page, your page, was missing from an issue. Apparently torn out by some lovesick, toothless female diver overcome by rapture of the deep, and yearning for some picture to talk to in her moments of solitude. Surely you have a two track mind . . . one leading you to your own watery downfall and the other to a list of every good looking broad, if I may use the term, that spelled your name right. Come on, smarten up. We want to see some pictures of a bunch of chicks assembling for a mass march against you. Surely you could at least do us a favor by putting Miss America in place of your tired words. At least for one issue. It would keep our minds off writing you nasty letters, and finding ways to place bombs in your typewriter. Incidentally, your jetty's as warped as your mind, only it's not so flat.

GAVIN MARTIN  
Toronto, Ontario

*What's with all you guys from the tea and crumpet set? On second thought, that part about a mass march of chicks against me . . . yeeesh!*

*. . . and so the wailing wind blows colder across the splintered planks of the old jetty and the burbling coffee pot calls farewell to the shaken stragglers stumbling back across the lonely beach. But I'll weather it out, huddled out here until next month when I'll look forward to another rush of screwball types. Till then I'll endeavor to keep the coffee hot, if not fresh. Adios, Amigos.*

KELPIE, KEEPER OF THE  
KOFFEE KUP

# NATIONAL ASSOCIATION OF UNDERWATER INSTRUCTORS

GERRALD H. HOWLAND  
EXECUTIVE SECRETARY

## CHICAGO FIRST INSTRUCTOR CERTIFICATION COURSE OF 1961 IS SOLID SUCCESS

By JERRY DZINDZELETA

**T**HE NATIONAL Association of Underwater Instructors held its first 1961 instructor training, testing and certification course at Chicago during the week of August 6-12. This week-long program was the second of its kind and the first to be held since the original Houston, Texas, course of 1960 which marked the beginning of N.A.U.I. instructor certification. The Chicago course was also the first of four courses planned during the months of August and September, 1961. The N.A.U.I. teaching staff was chosen to provide training in the theory of teaching, diving theory and the latest information regarding the science of skin and scuba diving.

Sunday August 6th, was registration day at Chicago. The Glenview Naval Air Station was to be headquarters for the week of work. Early in the day instructor applicants arrived and registered at Barracks 26 which was their residence for the duration of the course. The applicants found themselves a bunk in one room of the barracks which was shared by student and instructor alike. Miss Nancy Gill of Chicago, Ill. the first woman to attend a N.A.U.I. course, was quartered in the wave housing.

The course opened officially Monday at 8 a.m. with an introductory talk by Mr. Neal Hess. Mr. Hess is N.A.U.I.'s Chairman of the Board of Directors. He discussed the structure of and the formation of N.A.U.I. and then outlined the week's activities. The week was to be one of hard work for the applicants as well as for the instructors.

Each day began at 8 a.m. The entire morning from 8 a.m. until 12 noon was devoted to lecture sessions conducted by various instructors. Class was resumed after a one-hour lunch period. From 1 p.m. until 3 p.m. was also devoted to lecture sessions. The time from 3:15 to 5:30 p.m. was the daily pool work session. At 7:30 p.m. class resumed again until 9:30 p.m. and later was used for lecture and practice teaching by the instructor candidates.

The instructor candidates learned each was required to pass a thorough swimming ability test during the first day's pool session. Each candidate, by the end of the sec-

ond day, was also required to complete a physical fitness test. The first two days and the late evening of those days found many men, in hall ways and barracks rooms, struggling to complete push-ups, chin-ups, and other strenuous exercises. Complaints regarding sore muscles could be heard throughout the week at the Glenview Naval Air Station.

Mr. Hess lectured on the physics of diving and in doing so offered many new insights into the problems of understanding and teaching physics as it is related to diving. Mr. Hess also taught "Practical Aspects of Diving Instruction."

Mr. Al Tillman taught by far the greatest number of hours of anyone present at Chicago. Mr. Tillman is former Director, Underwater Activities, Los Angeles County Department of Parks and Recreation. He is Associate Professor of Public Recreation at the Los Angeles State College. Mr. Tillman's lectures covered many hours of many days of the Chicago course but his topic, "Teaching Techniques," required all the time that could be devoted to it.

Six hours were spent under the direction of Dr. Walter Kirker, author of "Medicine Under Pressure" in Skin Diver Magazine. Dr. Kirker's interest in diving is more than casual as he attended the Navy's underwater swimmer school so that he might learn first hand about the medical problems of diving. His major topic for the Chicago course was the medical aspects of diving and his lectures were one of the high points of the week. Dr. Kirker, at one of his lecture sessions, demonstrated closed-chest-cardiac-massage. This is a new highly effective method of starting a heart which has stopped beating without opening the chest. The system can be used by laymen with no more difficulty than artificial respiration.

Mr. Hal Lattimore, accomplished lawyer and diver, lectured on the legal aspects of diving. This subject is often overlooked by diving instructors. Mr. Lattimore's lectures aroused an interest in understanding the problems of liability involved in teaching diving. His lectures included the always interesting laws of salvage. Salvage law is

greatly misunderstood by the new diver and Mr. Lattimore's information did a great deal to clarify the subject.

Mr. Donald McNaught, Fishery Biologist of the University of Wisconsin Department of Zoology presented an interesting lecture regarding fresh water fish life, limnology and many other subjects which were new to most of the instructor candidates.

The pool instruction was to develop ability and teaching underwater skills. Pool work was taught by Mr. Ralph Erickson and Mr. Jerry Dzindzeleta. Mr. Erickson operates a diving school and is an accomplished swimming and diving instructor. Mr. Dzindzeleta is author of N.A.U.I. Fresh Water Instruction course, and taught diving first-aid and lifesaving during the course at Chicago.

A highly technical and revealing lecture session on scuba equipment was presented by Mr. Al O'Neil.

An unexpected visit and lecture by the recognized diving author Bill Barada was well received. His writings started many people on their underwater adventures (including some of the Chicago students.)

The candidates, after a few days of meeting and getting to know each other, expressed a feeling that was shared by the N.A.U.I. instruction staff. This was the feeling that the men who had come to the certification program were all of extensive experience in the field of diving and were all people interested in improving the sport of diving. They were all earnest in their desire to become efficient instructors.

Each instructor candidate was required, during the latter half of the week, to present two lectures on individually assigned topics. They had to utilize the teaching techniques they had learned earlier in the week. The first lecture was evaluated and the mistakes pointed out so that each student could prepare an improved second lecture which was graded by the staff. This was the first in a number of tests which determined whether or not a student would be certified. Friday afternoon's pool session, consisted of an underwater teaching ability test. Friday was the time for a very complete written test.

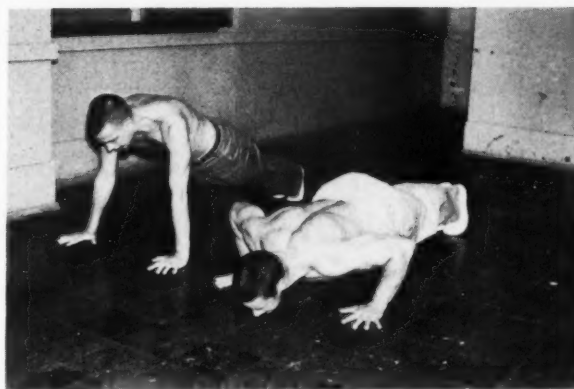
Saturday morning there was one last obstacle to pass. The open water test. The test was at Racine Aqualand, 60 miles north of Chicago, on the outskirts of the city of Racine, Wisconsin. It is a fresh water spring fed quarry. The water is some of the clearest and deepest in this part of the country. This was the last test of the N.A.U.I. Chicago certification program.

The graduation ceremony and banquet was held at the Racine Meadow Brook Town and Country club only a short distance from the Aqualand quarry.

Thirty applicant's came to Chicago. Three came from California and several men came from parts of Canada. Everyone present had sacrificed time, effort and money. Twenty-four people became certified N.A.U.I. instructors. Each of these people was awarded three symbols of certification. Neal Hess congratulated and gave each instructor a graduation certificate, a wallet sized N.A.U.I. Instructors certification card and the N.A.U.I. patch.

Mr. Hess explained that Certification as a N.A.U.I. Instructor designates that instructor as a competent, highly qualified, and experienced person who has met the requirements of probably the most difficult and thorough diving instructor training program of a non-military nature. He went on to stress that instructor certification cannot be abused. Its possession was an oath to uphold the high standards of diving instruction set forth by the National Association of Underwater Instruction. ➤

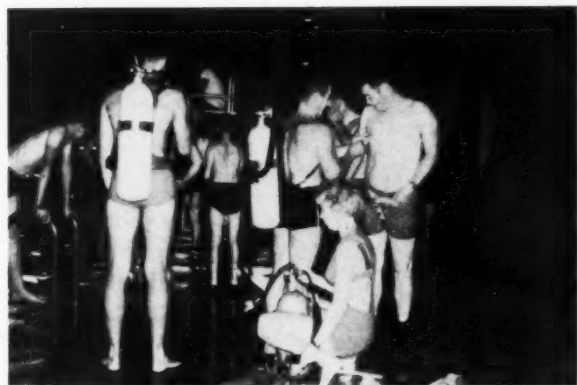
After hours push-ups. Instructor candidates struggle through last minute work-outs to help them pass rugged physical requirements.



Dr. Walter Kirker, medical editor of Skin Diver Magazine demonstrates new method of re-starting heart, closed chest massage.

#### NAUI INSTRUCTORS FROM THE CHICAGO COURSE

- Jack Snider  
1107 Sunset Lane  
Cadillac, Mich.
- Victor Olynk  
RR #1, Ft. William  
Ontario, Canada
- Don Van Rossen  
1941 University  
Eugene, Ore.
- Lt. Fred D. Leete,  
III  
3609 Lorain  
Indianapolis, Ind.
- John W. Washburn  
Box 398, Rt. 1  
Oscoda, Mich.
- Darrell Phillips  
525 Lincoln Blvd.  
Marion, Ind.
- Forrest Cooper  
5011 Cynthia  
Evansville, Ind.
- Orion L. Schultz  
570 Bird Street  
Birmingham, Mich.
- David McLaren  
322 Hallam Street  
Port Arthur,  
Ontario, Canada
- Arthur Van Aman  
2208 Brentwood Rd.  
Northbrook, Ill.
- Mike Barnes  
186 Beechbank Rd.  
Columbus 13, Ohio
- Neil Hurd  
10585 North Shore  
Drive  
Duluth, Minn.
- Jack Favors  
1301 Bailey, Apt. 12  
Edwards, Calif.
- Frank Pierri  
1016 W. Summer  
Appleton, Wis.
- Nancy Gill  
6140 South Kedvale  
Ave.  
Chicago 29, Ill.
- James E. Hirst  
1035 Western Ave.  
Northbrook, Ill.
- Robert Gove  
3650 Lake Drive  
Kalamazoo, Mich.
- James W. Hart  
7915 Shelbyville Rd.  
Lyndon, Ky.
- S/Sgt. John Savage  
Army Physical  
Training Centre  
Camp Borden,  
Ontario, Canada
- Capt. William R.  
Westfall  
Army Physical  
Training Centre  
Camp Borden,  
Ontario, Canada
- Richard Berger  
5015 Willowbrook  
Drive  
Ft. Wayne, Ind.
- Don Urbanskas  
7015 S. Oakley  
Chicago 36, Ill.
- Norman Dee  
Swanger  
18094 Sorrento Ave.  
Detroit 35, Mich.



Instructor Candidates give each other a final equipment check before pool test. Lane woman student appears relaxed and confident.

Neal Hess, foreground, discusses open water test techniques with Al Tillman, who obviously plans to follow students to the bottom.



# RANGIROA SHARKS

By

**D. L. BERGMAN**

(Photos by Author)

**These sharks like fish, not people . . .**

**And they'll steal your catch if they can**

**I**T WAS MY FIRST DIVE in the waters of Rangiroa, one of the northeastern atolls of the Tuamotu archipelago, about 400 miles from Tahiti. Having been diving in Tahiti, Moorea and Bora Bora for about four months, I reacted a little blasé to the tales I had heard of Rangiroa. I had seen a few sharks before—never had any close calls at all. In fact, the sharks seemed to be frightened of me. So I had evolved my own shark behavior theory: "Leave them alone and they will not bother you." In a few seconds now, I was to modify my theories substantially.

Now that I look back on this first dive, I can see that my native "friends" were giving me the business. Not all

diving in Rangiroa is as dramatic as in this particular area. Here I was, an American, armed to the teeth with spear guns, .38 caliber power head, knives, underwater 16 mm camera, depth gauges and enough spares to keep me diving for months. With a letter of introduction from mutual Tahitian diving friends, I sought out the local divers and was received most graciously. I told them I was a real nut on spearfishing and could they suggest their best area for the "big ones"? There was a spirited exchange in Tahitian that I couldn't understand, but now I'm sure could have been translated as: "Let's take this rube out to the pass and see how he holds up."

So we headed for the pass—about 15 of us. I was



familiar with the usual homemade, but very effective, wooden stock Tahitian gun, but these chaps were also armed with a new gadget; a long pole, 10-12 feet, with a big spike attached to the end. Obviously this was to poke at fish or sharks, but I wondered why these, the greatest of Tahitian spearfisherman, would bother with such a precaution.

Rangiroa is a classic example of the South Seas atoll. A low lying fringe of land formed an oval ring with one or maybe two narrow passes into the deep lagoon. The deep, calm lagoon, I learned later, is where most fishing is done. But not today. Today we went to the pass! Just off the shore of the pass there is a reef only about eight feet down. Then this reef ledge drops straight down to the bottom of the pass, about 80 feet. Hanging suspended over the reef I could easily see to the bottom of the pass. And it was loaded with beautiful fish—groupers, parrot fish, yellow tails, jacks, etc. Two large spotted sting rays rested on the sandy bottom.

Perfect visibility.

I quickly made my first dive. There were so many fish it was almost frustrating to decide which one to bag. I selected a big fat grouper lazily cruising along the edge of the reef at about 50 feet. The grouper was not in the least bit skittish and it was a very easy shot. As I lined up on him I thought to myself, "how easy—hardly any sport at all."

But then my world changed. I now know the cold empty feeling experienced by the chap when he feebly says, "I didn't know the gun was loaded." After spearing the fish I started to pull in the line and slowly drift to the surface. There was no hurry. I had plenty of time. And then—SWISH—a very fast and very big seven foot White Tip shark zoomed out of somewhere and plucked that fish off my spear.

It was like it had disappeared!

Another shark, only a fraction of a second later, made a pass at the bare spear. And another and another. Where did all these sharks come from? One headed straight for me. After the initial shock of losing my fine catch and finding myself among six or eight very active and very unfriendly looking sharks, I snapped out of my languid mood and headed for the surface fairly rapidly. But this one shark followed me right up.

There was no time to really analyze the situation—you know, the old saw about clicking two rocks together, or whistling underwater, or staring the shark down—I just kicked him in the face. He veered off. I reached the surface and the protective shallow reef. My diving companions had witnessed my introduction to the sharks of Rangiroa. I still can't quite see the humor of the situation, but evidently my friends could as they were laughing like this was the funniest thing they had seen in many a moon. My metamorphosis from a blase diver, not too



Author Bergman gives one of the robbers his comeuppance for swiping a particularly nice fish. With one eye on Bergman's fist, the shark promises to reform.

upset with a shark or two around, to a most rattled and frightened lad was quite speedy—like one second!

Now, I don't know if that shark would have attacked me or not. I think it had such a thought in mind. At this moment in life I would have welcomed the opportunity to retreat to the nearest bar and consider all angles, but the rest of the gang had no such plans—they settled down to some serious fishing. I watched them and soon joined them.

Let me describe what is certainly one of the most exciting spearfishing techniques I have ever experienced. It seems that the presence of big fish and ideal diving conditions is directly correlated to the size and quantity of the sharks; or is it vice versa? Anyway, the sharks stayed—always 10 to 30 of them.

You soon learn that there are sharks, and there are

(Continued on Page 53)



Left, Bergman readies his underwater camera for the "line-up" below. Right photo proves that all the beauties, and dangers, are not underwater in the South Seas.



# The DIVING GIRLS OF

# POHANG



**S**URE ENOUGH, there are skin divers everywhere, and they are all the same: hospitable and enthusiastic. We were not surprised, therefore, to see face plates and swim fins very much in evidence among the U. S. Marines at the Advisory Group Headquarters at Pohang, Korea. It was June, and the early summer sun sparkled brightly over the blue ocean of the Far Pacific. On the shore the peaceful green hills of Korea, which were bloody military objectives so few years ago, stood in quiet tranquility. This time we were there for more peaceful and much more pleasant adventures.

Equipped with light skin diving equipment through the courtesy of our hosts, we were headed for the series of cliffs and coves just south of the little city of Pohang. The dirty little road wound

**WHILE THE MEN BABYSIT, THESE  
GIRLS DIVE FOR DINNER**

By MAJOR HOWARD D.  
STEWART, USMC

through the peaceful countryside to the music of the Oriental cuckoos, leading us finally to a forested cliff overlooking a small, half-moon beach.

When we reached the beach, complete with our picnic lunch, fins, snorkel, face plates and air mattresses, we found it busily occupied by citizens of a small fishing village located on the cove to our left. There were tiny Korean children playing nakedly and happily in the sun under the watchful eyes of their elder sisters and brothers. There, too, we encountered one of the most ancient diving communities of the world, the Diving Girls of Pohang.

This "Pohang Skin Divers Club" has probably been in its unchartered existence for many centuries. No one seems to know how long these Korean girls have been diving here; the girls themselves certainly do not know. They know only that their mothers and grandmothers dived in the same rocky waters, and their daughters will probably do the same in the years to come. The Oriental feels that experience has shown quite clearly that women make better skin divers than men due to their better resistance to cold. Something to do with fatty tissue they say. In any case, after experiencing an afternoon in those cold northern waters, we felt that perhaps the Orientals were right.

The girls come mostly from several small islands at the southern tip of the Korean peninsula. When they reach their teens, they go to work as divers at Pohang during the summer. The money that they so laboriously accumulate becomes their dowry for marriage. When they save up enough money, they "buy" a husband in their home islands. However, their diving doesn't end at marriage but



Ready for a dive in her unusual bathing suit, this girl pauses on her way to work for a family portrait.



The diving girl's float, net and remains of lunch.

continues through the years. During the summer months, their husbands remain comfortably at home and baby-sit while mamma works at her trade. As Asiatic children are all well-disciplined and generally a joy to have around, perhaps the husbands have the best of this deal.

The riches of the Pohang coast are many, but the girls, through lack of spearguns or weapons of any type, content themselves mostly with the delicious and tender seaweed found along the bottom. Many Americans regard the eating of seaweed by Oriental peoples as vaguely akin to eating crabgrass, but it really isn't bad when fixed correctly and eaten with the hot Korean sauces. Scientists have stated many times that seaweed contains valuable minerals and other beneficial food properties too long neglected by Western peoples. The Asians certainly thrive on it. Besides the seaweed, the girls dive for clams, mollusks of all types and sea urchins. The latter, which they handle with their bare hands, are considered a great delicacy. The little creature is simply opened with a knife and consumed on the spot. It is said to taste like an oyster though we politely refused those offered to us by the obliging girls.

The equipment of these girls is worthy of note. Their dress consists of a white smock-like garment not unlike the Ku Klux Klan's. A white, pointed headdress completes the illusion. The whole thing is laced up the girl's side like the sexier models of some of our Western women's bathing suits. The color white is used as it is supposed to frighten away sharks. The girls do not have swim fins, face plates or snorkels, but use only the wooden Japanese-style goggles that we pre-World War II divers remember with such disfavor. We saw only one girl who had a face mask, and this was regarded as the height of luxury. Their knives are simple, curved blades tied by hand onto wooden handles. While not very fancy, perhaps, these knives seem perfectly adequate to cut seaweed and pry loose shellfish. The most interesting part of the girls' equipment proved to be their floats, which were large gourds about the size of swollen basketballs. Tied to each gourd was a circular net which holds the diver's harvest until she reaches shore.

The girl's technique is simply to wade into the ocean and, while holding onto the float with both hands, kick out to the hunting grounds. Not having snorkels, they have a tiring and inefficient task while searching for their underwater targets, but they seem to make the best of it, giggling and laughing away like girls anywhere. When they spot a particularly succulent strip of seaweed or an exceptionally juicy-looking sea urchin below, down they go,

*(Continued on Next Page)*



## POHANG

(Continued from Last Page)

knife in hand, collect it and place it in their nets after surfacing.

After getting their breath back, their final step after each dive is to whistle!

That's right, they whistle!


This stopped us for a while before we realized the purpose. The whistle is to see if they are too cold to continue in the water. The theory is that as long as they can whistle, they are not too cold, but when their lips are too chilled to produce a lusty whistle, it is time to go ashore. Let it be stated here that the waters off Korea in June are not unlike those off Maine! In other words, icy! We Western-type skin divers, all male (worse luck), found that about twenty minutes in those waters at a time was all we could stand. The girls, being girls and being used to the waters of their country, seemed able to stand the cold quite comfortably for at least two hours at a time; more than enough time to fill their little nets with "goodies."

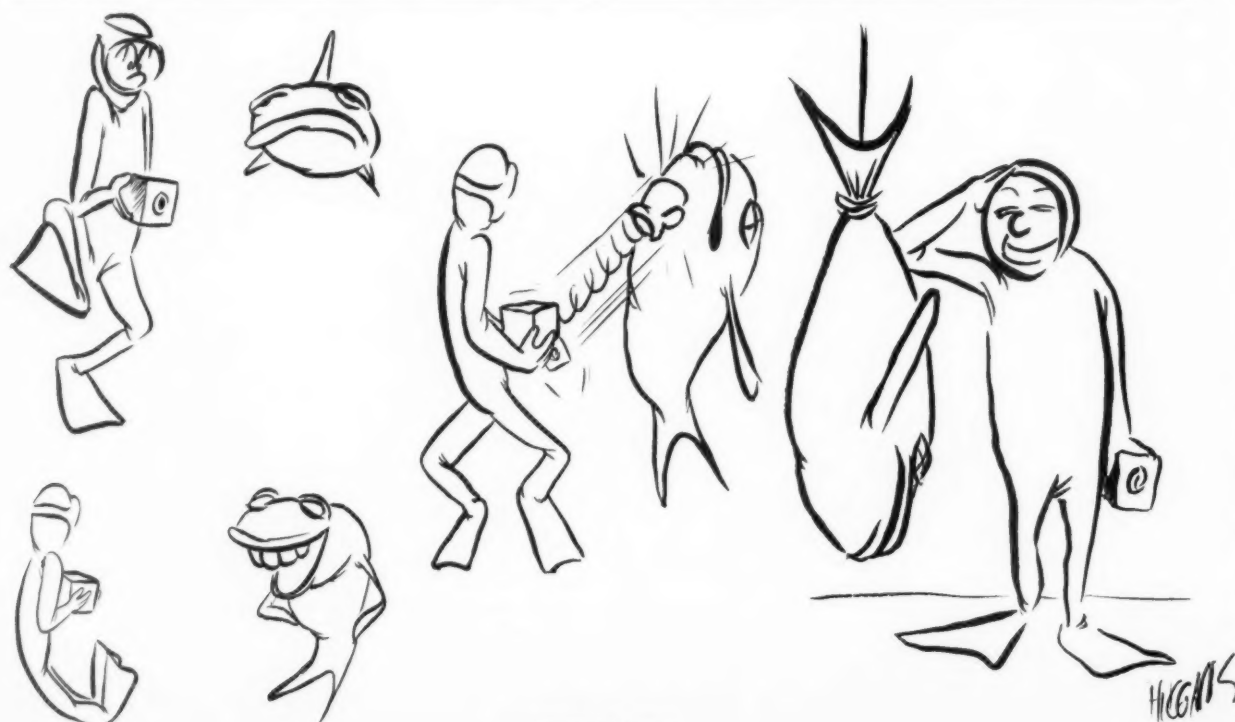
The girls of Pohang were fascinated by our equipment. They understood the swim fins at once, had seen or tried face masks at one time or another, but had never seen snorkels before and were immensely curious about their use. When they observed our use of this practical but simple little gadget, they were both excited and delighted, and nothing would do but they simply had to try them.

Although primitive, these gals are professional divers in every sense of the word, and they understood how to use snorkels without any instruction at all, delighting in being able to observe the bottom without having to continually surface for air. Our spearguns were of equal interest, particularly among the small boys who appeared, as small boys always do in the Orient, to observe and ponder the strange ways of the "mysterious West." In our bright colored swimming trunks, fins, masks and snorkels, we

must have presented a truly exotic sight to those simple fisher-folk.

Trying the waters ourselves, we found depths averaging about fifteen feet and most interesting. Below us were huge boulders, some tall enough to stand on with our heads above water. Around the rocks, and swaying back and forth with the ocean swell, was a forest of seaweed of all types. Through this underwater forest below us swam all sorts and sizes of fish; some looked like sea bass and some we could not seem to identify at all, but they were of good pan size, from ten to twenty inches in length. Hunting them proved surprisingly difficult because of the rocks and weed, which blocked our visibility and impeded our stalk. California spearfishermen will probably laugh at our difficulty, being accustomed and experienced to spearing in beds of seaweed, but we were used to the easy hunting of the central Pacific, with its colored coral, unlimited visibility, warmth . . . and venomous sea snakes. We were out of our normal habitat, blue with cold, covered with slimy seaweed and distracted by playful diving girls, who plunged, giggled and whistled about us like a school of porpoises. The only shots we could make at the fish were from above, and, as all spearfishermen know, shooting at the narrowest side of a fish just isn't the best way to get him. What made our problem even greater was that, after each shot, we would have to make one or two more dives just to retrieve our spears from the seaweed jungles. Our spirits were not vastly improved by the taunting girls, who expected more than empty spear from the American Raj, and happily shouted, "Sakana-wa doko dess-ka?" (Where are the fish?) in Japanese they found we understood . . . then giggled wildly!

All of this made us wish that we had some wet suits and our scuba gear with us so that we could really get some fish to show for the glory of American skin diving, but, then, maybe we would have looked even more ludicrous . . . to the Diving Girls of Pohang. 



Aquatic Center

# Personality Spotlight

BY CONNIE JOHNSON

## BOB CAHILL

**B**OB CAHILL, who is spotlighted as our personality this month, is well-known to Skin Diver readers as the author of many interesting articles over the past years.

He is extremely interested in training divers, basic and safe use of diving techniques and has been active not only on the east coast where he lives, but also introduced diving training programs in the Red Sea area while stationed there in the Army.

Bob quite naturally fell into diving. At the age of 16 he was the second person to enter the New England waters with a lung strapped to his back. His brother, ex-Navy frogman Jim Cahill, needed a diving buddy. Bob recalls his UDT style lessons with a chuckle now.

Since his first encounter in diving, Bob has assisted his brother, who owns one of the largest salvage companies in New England, on many diving operations. When he was just 17 years old, he dived in the Merrimack River in search of evidence for the infamous Clark murder case.

In 1953 he and Ernie Debner organized the New England Divers Frogman Club. Bob also organized and was president of the Neptune Underwater Team of Marblehead, Mass.

Throughout his four years at Boston University, he instructed scuba at the Beverly and Marblehead YMCA's and during the summers off the coast near his home in Marblehead. Also during his college summers, he managed a retail diving equipment shop and was salvage diver for Graves Yacht Yard. He also organized many treasure hunting expeditions. One of these treasure ventures was with the famed historian Edward Rowe Snow for a Spanish galleon off Cape Cod; another, in search of the great treasure ship Sagunta off the Isles of Shoals, New Hampshire. During the early fall of 1956 he joined his brother in a three-week salvage expedition sixty miles off the tip of Cape Cod for the sunken freighter Oregon. In the summer of 1957 he and two other divers salvaged the yacht Reveler from the depths off Breakers Hole Reef near Manchester, Mass.

In 1958, as a lieutenant in Army Security, he was sent to Eritrea, East Africa, for two years. There he did extensive diving in the Red Sea, recovering 200-year-old pottery from a bay in Massawa and discovered an old Italian war ship off the coast of Zula. Bob also instructed diving in the capital city of Asmara. Among his pupils were Italians, Eritreans, Americans, British and members of the Ethiopian Commando team. He also organized an Army diving team while there. During his Army hitch he traveled through Saudi-Arabia, Greece and Italy, diving in the Persian Gulf, the Mediterranean and lakes of Italy.

Upon his return to the states in January of 1960, he became sales representative in Rhode Island and Connecticut for New England Divers Inc. He also was head instructor at the Providence YMCA and instructed at the Pawtucket YMCA.

Bob and three other divers discovered and recovered the bodies of three men who were lost two years prior when their plane crashed into Long Island Sound.

His most hair-raising experience came when he met a seven-foot barracuda in open water off the coast of Africa. And his most humorous, although not at the time, happened when his automobile rolled down a driveway, over a cliff and into the ocean. He had to go diving to retrieve it.

Bob is now public relations officer of the Hartford, Conn., Gilmen Diving Club and assists in scuba instruction at the Hartford YMCA. He is employed in the advertising division of the Aetna Casualty and Surety Company and is active in their new film on diving entitled, "What's Up Below."





INLAND DIVERS NOTE! THERE COULD BE A  
DIVER'S DREAM RIGHT NEAR YOUR OWN BACKYARD

By PETE JAMERSON

(Photos by Roy Gaines)

ROCKBOUND



**F**LORIDA, with its sandy beaches and beautiful coral formations; Nassau and the Bahamas, their gin-clear waters teeming with tropical fish and plentiful game; Southern California, with its kelp beds and succulent abalone. Truly prime diving sites. No need of the well-powdered wet suit here.

But what about those of us who, unfortunately, live too far away from these waters to take advantage of them? Well, for us, there is always the "good old quarry."

Actually, these abandoned, water-filled evidences of man's labor make interesting and challenging diving areas. For the most part, quarries are "dead" worlds and the water is cold enough to warrant a wet suit the year around. However, the visibility is good and, in most cases, depths range well over one hundred feet. Occasionally, one will find some form of plant life growing along the upper sides of rock cliffs and catfish, small mouth bass, perch and fresh water crayfish can be seen.

In most quarries the diver will stumble across many remains of the men and machines who worked these long abandoned rock pits. Shacks, sheds, erect telephone poles, ore cars, railroad tracks, even sunken row boats are to be found strewn in confusion along the bottom, one hundred feet down.

Free from ocean currents, fire coral, urchins, predators and other salt water diving hazards, the rock quarry makes an ideal diving site for the novice or beginners. Here the new diver can learn the techniques of buddy breathing, emergency ascents, decompression, and familiarize himself with his equipment at his leisure.

Quarry diving offers other challenges as well. In many cases this water is not readily accessible. Long treks over dirt ruts and back-breaking hikes often are necessary to reach the side. Add to this a set of doubles, rock-strewn slopes, poison ivy, and the rest of your gear and one realizes how truly dedicated the scuba diver is!

Rock quarries, though long in disuse, are still owned by someone. Therefore, play it safe and smart, and have a

A pair of quarry divers working out with snorkels. The bottoms of quarries are usually littered with evidences of man's presence . . . ore cars, railroad tracks, and other mining debris.



The smaller of the two quarries at Martinsburg, West Virginia. Entrance to the quarry is made through a submerged tunnel from a larger quarry nearby . . . and seventy-five feet below the surface.

release of liability drawn up and signed by your club for the owner. This will, in many cases, relieve you of the embarrassment of being asked, by a man with a shotgun, "what in H— are you doing down there?" In addition, it helps further the idea that skin divers aren't such a bad, irresponsible lot after all.

Although quarries make good sites for the novice, don't get the idea that this kind of diving is not without its thrills and chills. One large quarry near Martinsburg, West Virginia, is connected to another equally big water-filled pit by an underground tunnel, the roof of which is seventy-five feet down; the floor one hundred and ten. The tunnel runs for about one hundred feet and is pitch black and cold. Notwithstanding this, or perhaps having taken courage from the latest Cousteau book you've read, you traverse this ink-black passageway and enter the other quarry. There, unfortunately, you find the rock walls nearly perpendicular, or in other words—no way out. Nothing for it but to cross your fingers, close your eyes and hope you have enough air to get back again. In the total darkness, seventy-five feet down, your best bet is to inch along the roof of the tunnel. At least then you will know which direction is up. If you have been smart enough to use a guide line, and are careful, you will soon see light ahead.

The quarry also makes an ideal place in which to test new equipment. I know two divers who tried out the latest underwater towing device in a quarry near Kearnsyville, West Virginia. They were having a ball until the battery ran down on the tow. Surfacing, they found themselves about a quarter of a mile from the only exit. They had a lot of fun snorkling back with near-empty tanks and towing the tow!

Yes, when the four hour drive and the two hour boat trip to some sort of clear ocean water seems just too much for both pocketbook and physical endurance, there's always "the good old quarry."



by JEAN DOWD

# Junior . . . FIN FANS

[Would you like a diving Pen Pal? Send in your name, age and address and we'll print it in the Junior Fin Fans column. Write to: Junior Fin Fans Underwater Mailbox, c/o Skin Diver Magazine, Lynwood, California.]

**H**OW TO TRAIN PORPOISE. That's what the well-known Brauer children went to find out after receiving an invitation to dive at the famous Marineland of the Pacific. You'll need just a few items, such as half a million gallons of salt water, a 275-pound porpoise, tons of fishy tidbits, a vast knowledge of ichthyology and the patience of a line fisherman.

Georgia (13), Jody (6) and Alexis (3), working with trainers Cliff Moore and Clark Bowers, soon had porpoise rising to the occasion for bits of fish. To attract the attention of the porpoise, they slapped the side of the tank or the surface of the water. Porpoise are playful, affectionate creatures and like to have their noses scratched. They were soon performing for the girls, playing ball, hauling small boats with dogs at the helm, singing, tooting horns, beating drums and leaping through a flaming hoop.

But diving with porpoise is even more fun, and Dave (11) joined Morris Fruitman, L. A. County Department of Parks and Recreation Aquatic Specialist, for a swim in the Sea Arena. The porpoise have a complicated system of communication, whistling and grunting as they cavort near the divers. One linguist reported they have a better "vocabulary" than two present day Indian tribes. They also have a great affinity toward man and there have been a number of recorded cases, from Grecian times to the present day,

where porpoises have helped swimmers in distress. Just for fun, David and Morris decided to test this theory. A life ring was thrown to David as he "thrashed" in water. The porpoise rushed to his aid and pushed him "ashore." This rescue trick is very natural to porpoise.

Dave Brown, one of the world's leading authorities on marine mammals, explained some of the intriguing facts scientists know about porpoise. These small 12 foot whales (dolphin) are clever and swift. They can swim in excess of 22 miles per hour. They are next to man in intelligence, their neurological anatomy being comparable to the human brain in size, or proportion to body weight. They have a wide pattern of behavioral traits, showing inventiveness and ability to reason. There is proof, also, that they once walked on land. There are still skeletal traces of terrestrial forelimbs and pelvic bones.

Porpoise have certain physiological gifts. They use "sonar" to locate fish. They have excellent hearing ability and, of course, water is a good conductor of sound. They have no sense of smell, but their eyesight is good underwater. When they rise above the surface, however, scientists believe their vision is hazy. Try opening your eyes underwater, without your mask, and you'll see what they mean.

The swimming ability of the porpoise, 5 to 10 times more efficient than any ship, can be attributed to its body design and unusual skin. The two layers of skin

are bridged by connective tissue resulting in a pneumatic effect. Ship builders are now trying to incorporate these principles in building boats that have less resistance in the water and have now developed a type of "dolphin skin" for the hulls of model ships.

From the diver's viewpoint, however, the most promising research is being done by Dave Brown at Marineland. Dave has been Curator of Mammals at Marineland for eight years after an extensive background of study of marine fish and invertebrates at the London Zoo. He finds it difficult to discredit completely the many accounts of the porpoise's helpfulness to man. His present research concerns recording of the mammal's distress signals. When this signal is made, other porpoises rush to the aid of the endangered mammal. Knowing porpoise to be the prime enemy of shark, could a device be made that would imitate this signal? Furthermore, could divers using this device attract the friendly porpoise when shark are sighted? It may be possible that such a recording some day could bring, at long last, a workable shark repellent.

You can see why the Brauer children had a whale of a time at Marineland. After a swim with the educated porpoises, David Brauer dived in the big tank with over 5,000 ocean creatures including 300 pound sea turtles, 13 foot sawfish and a very beautiful mermaid, Judy Hoffman.

All the Brauers are excellent divers, although "Alex" is still in the learning stages. They have made numerous T.V. appearances and have participated in diving sports shows. Their dad, George, and uncle, Don Brauer, are marine photographers and have three diving shops in the Los Angeles area. Their T.V. show, "Territory Underwater," will be shown nation wide this year.

David works on their boat, the Rio Rita, as a deck hand. He's in the 6th grade and his favorite subject is reading. Georgia is in the 8th grade and likes math, art and music. Jody, a vivacious 1st grader, enjoys drawing and ballet. All but three-year-old Alex have decided on a career. Georgia wants to work in a diving shop—with her dad. Dave wants to be a skipper of a big boat—with his dad. Jody wants to have a diving shop—with her dad. As for Alex, we predict she'll want to go into some phase of diving—with her dad.

If you'd like more information about fabulous Marineland of the Pacific, write to:

Clyde Tussy, Public Relations Director  
Marineland of the Pacific  
Palos Verdes Estates, Calif.



David Brauer found "Smiley" to be a very playful, friendly diving buddy, though a little noisy underwater.



The eleven year old dolphin, very valuable, performs a tube rescue when she sees David in distress.

Photos by Ed Dowd



Georgia, Jody, David and Alex Braver learn tricks of the dolphin training trade from trainer Cliff Moore as "Speedy" shows off in return for a fishy treat.

# JUNIOR UNDERWATER MAILBOX

PLEASE ADDRESS ALL MAIL TO:  
JUNIOR FIN FANS UNDERWATER MAIL-  
BOX, SKIN DIVER MAGAZINE, LYNNWOOD,  
CALIF.

... I am 13 and love diving more than anything. When I'm older I hope I can make the U.D.T. of the Navy. But, I can't dive because I have no buddy, and in New York most beaches forbid use of underwater equipment. Maybe you can find me a buddy who knows where to use equipment.

Mark Rindler  
1482 Morris Avenue  
Box 57, New York, N.Y.

... I'm 14 years old, a junior in high school, a beginner in this sport, and I am looking for a buddy in my area. Please write.

Stuart Cohen  
3057 Brower Avenue  
Oceanside, New York

... I am looking for a diving partner or a club to join. Please write.

Mike Burke (15)  
3472 Stanbridge Ave.  
Long Beach 8, Calif.

... I am 11 years old and have been diving for five years. I wish to join a club in Warren, Mich.

John Schultz  
4545 Buchanan  
Warren, Mich.

## SHELL TRADE

Herbert R. Burchell 1300 S.E. 1st Ave.  
Deerfield Beach, Florida

Robert Mason  
2516 Park Street  
Terre Haute, Indiana

## PEN PALS

... I am 17, a good diver and I have a male companion, my cousin, Bill. We are looking for two female divers, so start writing girls.

Dave Weessler  
5023 14th Ave.  
Brooklyn 19, N.Y.

... I would appreciate it very much if I could hear from a scuba diver around my age that lives in the vicinity of Key Largo, Florida, that could dive with me around January or February. We will visit there this winter.

Dennis Aubrey (13)  
751 Arden Ave.  
Staten Island 12, N.Y.

Tom Cantwell, 15  
231 No. Hawthorne St.  
Massapequa, L.I., N.Y.

Sharon Graham  
1713 2nd No.  
Seattle, Wash.

Richard Gould, 9  
341 So. Walton  
Yuba City, Calif.

Ray Koba, 14  
1220 W. 11th St.  
Lorain, Ohio

Larry Pierce, 14  
513 N. Alabama  
Brazil, Indiana

Donald Hiltbruner  
1359 48th Ave.  
San Francisco, Calif.

Barry Chafin, 13  
1009 W. 5th Street  
Huntington, West Va.

Mary Ann Myers, 13  
823 Seabright Lane  
Martins Ferry, Ohio

Rod Francis, 14  
5072 Sierra Vista  
Arlington, Calif.

Norm Littig  
1393 Edgemoor Drive  
Madison 5, Wisconsin

Steven Steinberg, 13  
215 Waverly Ave.  
East Rockaway, N.Y.

Charles Orrett, 11  
666 St. Nicholas Ave.  
New York 30, N.Y.

Robert Rand, 15  
24 Lind St. Strathmore  
Melbourne, Victoria,  
Australia

John Grim, 18  
34 Terrell Ave.  
Rockville Centre,  
L.I., N.Y.

Jerry Mekalet, 17  
4241 Prescott  
Lyons, Illinois

Mike Nunes, 12  
16 Horace Court  
Fairfield, Conn.

Linda Weidetz, 14  
822 Seabright Lane  
Martins Ferry, Ohio

Jack DeGraaf, 17  
26 East 20th Street  
Holland, Mich.

## JUNIOR FIN FANS CONTEST WINNERS

Here's the list you've been waiting for—the names of the 54 winners. See August issue for prizes they won. Also, watch for a new surprise contest to be announced in the February issue.

### 1ST PRIZE

Paul Krakauske  
New Britain, Conn.

### 2ND PRIZE

Clarice Jones  
Coral Gables, Florida

### 3-13

Vicki Chapin  
Batavia, New York  
Betty Blecha  
Tucson, Arizona  
Patrick Meister  
Santa Monica, Calif.  
Stuart Groves  
Sudbury, Ont., Can.  
John Ernst  
Toledo, Ohio  
Adare Meister  
Santa Monica, Calif.

Micheal Vazquez  
New York, N.Y.  
Albert B. Manski  
Boston, Mass.  
Bill McDougall  
La Place, Louisiana  
Tim Curnen  
New York, N.Y.  
Linda Ruehling  
Biloxi, Mississippi

### 14-19

Doug Foster  
Kingsport, Tenn.  
Harry Thomas  
Cataumet, Mass.  
Steven Volk  
No. Hollywood, Calif.

Harold Zuber, Jr.  
Mt. Wolf, Pa.  
Chris Trammell  
New Orleans, La.  
Robert Lee Pruitt  
Birmingham, Ala.

### 20-25

Dave Grieve  
F.P.O. San Francisco,  
Calif.  
Kenneth Hodge  
Prince Edward Island,  
Canada  
James Meloon  
Kenmore, New York

Ed Harkness  
Cohasset, Mass.  
Philip Goldberg  
Brooklyn, New York  
Gerald Gedris  
Grand Rapids, Mich.

### 26-27

Pat Murphy  
Allen Park, Mich.

### 28

Jane Brunelle  
St. Paul, Minn.

### 29-34

Jolene Phillips  
Carmichael, Calif.  
John Schultz  
Warren, Mich.  
Clarke Greene  
Bristol, Conn.

### 35-40

Gary Schapper  
Louisville, Kentucky  
Mitchell Wilf  
Philadelphia, Pa.  
Steve Lawrence  
Madison, Wisconsin

### 41-54

Allen Taylor  
Nutley, New Jersey  
R. Bicknell  
Cashmere, New  
Zealand  
George Sargent, Jr.  
Lunenburg, Mass.  
Donna Jean Mason  
Rochester, New York  
Allen Plaster  
Morganton, N. C.  
Dale C. Swanson  
Portland, Oregon  
John Dannley  
Medina, Ohio

Tim Kobay  
Houston, Texas

Keith Weaver  
Independence, Mo.  
Gibby Towns  
Livingston, N.J.  
George Burns  
Frankfort, Indiana

Gene McDonough  
La Puente, Calif.  
Pumpkin Lee  
Phoenix, Arizona  
Armin Keller  
Hickory, N.C.

Kenneth Weinstein  
Rockville Centre,  
New York  
Kon Petrochuk  
Cleveland, Ohio  
James P. Malecki  
Chicago, Illinois  
Tom Wansleben  
Teaneck, N.J.  
Ricky Rhodes  
Marshfield, Mass.  
Dennis Lengle  
Cleveland, Ohio  
Sue Holt  
Hudson, N.H.

Again, many thanks to HEALTH-  
WAYS, SKI 'N DIVE, SPORTSWAYS,  
SWIMASTER, NEMROD BY SEAM-  
LESS, U. S. DIVERS for their gener-  
osity in donating the prizes for this con-  
test.



## BE A REGISTERED JUNIOR DIVER

## JOIN THE NEW JUNIOR FIN FANS CLUB

By forming this new club for juniors, Skin Diver Magazine has created a news center for young divers to promote safety, answer questions, provide recognition and exchange ideas.

The membership fee of \$1.00 includes a notebook for your special diving information, the club decal and personal membership card. In return, you must agree to follow the safety rules listed on the back of your card.

Help us make a big splash for juniors everywhere! Join Junior Fin Fans Club today.

Be sure to include: your name, age, address, birthdate and a check or money order for \$1.00.



**Second Annual  
GLASSPAR  
GAME FISH  
DERBY RESULTS**

# CHICAGO CARP WINS GLASSPAR



Above, Jim Lee is admiring his new Glasspar Avalon and below he shows the chunky fish that won it for him.



## Spearfishing contest tremendous success; entries nationwide

A 34 pound, 8 ounce carp has won for Mr. James R. Lee of Chicago a brand new Glasspar sixteen foot Avalon runabout. Mr. Lee is shown in the accompanying photograph admiring his new boat.

Verified by Dan's Diving Den of Hazelton, Illinois, the carp netted a total of 1035 points to top all other entrants in the contest, though Paul von Leer of Terre Haute, Indiana, came close with a carp worth 1027.5 points. The difference in weight between the two fish was a mere four ounces, to make this one of the closest spearfishing contests on record.

Fish from each of the different classifications in the Derby were entered with one of the most interesting being the entry of Albert Kurtch of New Fairfield, Conn. Mr. Kurtch's fish, a Bonito weighing in at 148 pounds, was the apparent winner with a point total of 2960. Then Mr. Kurtch, in a sporting gesture that was prevalent throughout the contest, in-

formed the judges that he had re-read the rules and noted the clause about the fish being taken in the continental limits of the United States. He then disqualified himself, informing the judges that his winning fish was speared in the Red Sea off Eilat, Israel.

Entries were received from all parts of the United States and some fine catches were recorded. Among them was the 502 pound Giant Sea Bass speared by R. P. Bradley of Beeville, Texas. Another fighting catch in the Second Annual Glasspar Game Fish Derby was the 44½ pound barracuda taken by Paul Dammann of Perrine, Florida.

In the Snapper classification, Jack Kearns walked away with the honors with a big 90 pounder. Kearns is from Miami, Florida.

California had its share of huge fish entered with Bill Paddock of Baldwin Park a good example. His 48 pound Yellowtail took the honors in

that classification. Another Californian, Bob Caruso of Los Angeles, led in the White Sea Bass division with a beautiful 65 pound giant.

The East Coast was well represented with Chester Hoynoski's 21¼ pound Sheephead and Charles Krogslund's 11 pound, 3 ounce Tautog. Hoynoski is from West Springfield, Mass. and Krogslund from Middletown, New York.

Representing the great north west, and another division winner, was Donald W. Johnson of Port Angeles, Washington. His 53½ pound Ling Cod was best in this classification.

It is apparent that as the Glasspar Derby increases in scope each year, more and more areas of the country are participating. Some of the best spearfishermen in the United States have been listed among the contestants. Next year should be a real battle once again. »



Photo by Ken Simpson shows Jack Kearns and his huge Snapper.



A near miss was Jerry Bastian's 60½ pound White Sea Bass in the Glasspar Fishing Derby.



Bill Paddock displays his 48 pound Yellowtail, speared off the coast of California.



A giant 44½ pound Barracuda took the honors in that classification for Paul Dammann.

## IS THE DRY SUIT HEADED FOR EXTINCTION?

By G. A. Ross Cowan

NOT TOO MANY readers with a real interest in modern diving will even remember the now extinct passenger pigeon. He was a creature of beauty, providing sport for the hunter and meat for his table, but man in his thoughtlessness, without giving any consideration to the benefits that this bird might bring to future generations of man, allowed it to become forever extinct.

Man does seem to be trying to think up some way to save the great whooping crane from the same fate and the success or failure of his efforts may not be known for years to come.

The much maligned dry suit has been the subject of criticism for too long a time. It is necessary first to make some admissions that dry suit users have been avoiding for years. A rapid descent has caused many an ear drum explosion—yes, explosion, not implosion due to the simple principle of Boyle's Law. Without a thorough understanding of the why or wherefore from a high school physics or chemistry point of view divers have learned, sometimes the hard way, how to avoid the difficulty, namely by lifting the edge of the hood face opening from each cheek and allowing water under the hood and thus to the outer ear canal. Others attempt to wear the mask with its skirt under the edge of the hood and explain that they simply exhale through the nose and the air obligingly passes out under the mask skirt and travels under the hood to the outer ear.

The author of this article has been teaching swimming for nearly forty years and operating a diving school for over nine of the forty with a safety record unsurpassed in the world—not one fatality during training, or for that matter, to a graduate anywhere—yet.

An early double ear drum rupture by an associate diver, in fact the very first graduate student, started a long period of reasoning. This was stimulated by a personal double explosion on a fast emergency dive to only forty-five feet in the hope of rescuing possible survivors that might be trapped in an air pocket in a sunken tug boat.

To solve a production line problem the great Henry Ford was said to have put a lazy man on the troublesome position and he would work out a simple solution. This dry suit problem must be solved as it was a completely untenable situation to accept either one of the two practiced methods. From a practical point of view either one simply introduced to the dry suit the principle of the wet suit, in so far as the head, at least, was concerned, and although some wet suit users will argue to the contrary perhaps to the end of time, the best way to keep warm in cold water, in a cold country, in the winter, is to keep dry.

Dry suits are simple to maintain, or so we think, and here again this is a matter of relativity and subject to lots of comment and perhaps the statement should be simplified by stating that "under similar circumstances or conditions of use it is the author's opinion . . ."

Dry suits do not require tailoring to the same fit tolerance as the wet suit—they pack away for transportation much handier and are available in good serviceable quality for less than half the price of a quarter-inch wet suit which is the only weight that could even be considered for winter use here.

The author has had the necessary training to work out the solution to the only serious problem of the dry suit since the invention of the purging tube.

The patent is now pending in the United States Patent Office for the simple device which removes forever the hazard of ear drum explosion from the use of the dry suit although the diver must still pressurize the internal ear just as is required when diving with the ears uncovered. This is, of course, required with wet suits, too.

The equipment required is called an "ear pressure pod" and is not unlike the side gunners turret on a "Catalina flying boat." They are rubber cups shaped like small hats filled with foam plastic and fixed on any dry suit by simple rubber cement over the sides of the hood low enough to clear the mask strap. A small hole is cut in the skin of the suit over the location of the ear canal so that as the diver descends and the pod collapses the pressure of the water is transferred to the outside of the ear drum and there is, at last, no more difficulty to dry suit diving than scuba diving clad only in swim suit—and all automatically.

It is hoped that the pressure pods will be available on the market very soon for a retail price of under ten dollars. ➤

# News Current

NEWS FROM AROUND THE GLOBE COMPILED AND EDITED IN SKIN DIVER OFFICES. Local diving news from readers welcomed.

**CLEARWATER, FLORIDA**—Harvesting food underwater is not as far-fetched as most believe. In fact a group at the **Clearwater Marina, Diving Unlimited**, are locating and mapping algae beds in the **Gulf of Mexico** as part of a study by the **University of Florida**.

**NEW YORK, NEW YORK**—Television personality **Hugh Downs** plans exploring the **Andrea Doria** this fall. **Hugh** is an avid skin diver.

**HOLLYWOOD, CALIFORNIA**—Sharp-eyed critics have spotted a boner in the underwater movie "**Voyage to the Bottom of the Sea**." **Michael Ansara** sports a Vandyke beard in all his scenes except when diving. Undoubtedly **Mike** had a double for the diving scenes and no one thought the beard would be missed.

**NEAH BAY, WASHINGTON**—Thirteen-year-old **Jimmy Ray** put his diving to work in helping a red-faced fisherman recover his auto and boat trailer from the briny. The youngsters took a towing cable underwater and attached it to the car. **Jimmy's** father, **Mel Ray**, hauled away with his tower and pulled the car to dry land with **Jimmy** in the car steering it up the ramp behind the cable.

**GALVESTON, TEXAS**—A diving survey southeast of **Galveston** in the **Gulf of Mexico's** famed flower garden revealed that in another thousand years two new islands will be formed. This report was announced after nearly a year's exploration of the two potential islands lead by **Dr. Thomas E. Pulley**, biologist and director of the **Houston Museum of Natural Science**. **Dr. Pulley** explained that underwater coral reefs have climbed to within 70 feet of the surface at both sites in areas where the **Gulf** is about 300 feet deep. Thirty-five divers from **Houston, Dallas, Austin, Beaumont, Lake Jackson, La Porte, Freeport** and other areas are assisting the biologist in exploring the two sites. These living coral reefs are 500 miles farther north in the **Gulf** than such coral has ever been found. A third formation at **Stetson** bank does not have the living coral growing on it. Rock outcroppings have been found more than 30 million years old—mid-Miocene era.

**DRUMMOND ISLAND, MICHIGAN**—Divers **Tom Fortner** and **John Yuma** have discovered one of two scuttled British cannon near their last outpost at the mouth of the **St. Mary's River**. Only about eight inches of the big iron muzzle protruded from the bottom. Records indicate that when the **British** turned **Fort Collyer** over to the incoming **American** troops in 1827, they scuttled a bronze cannon and an iron one. They also recovered brass regimental badges and found a timbered crib filled with rocks and believed to have been the substructure of a **British** landing wharf.

**WILMINGTON, DELAWARE**—A woman angler scored a fishing first recently while fishing for stripers from the south jetty at **Indian River Inlet**. **Mrs. Helen Columbo** reported feeling a strike and as she set the hook and prepared to reel in the catch, the tension on the line eased . . . her catch had come to the surface voluntarily . . . it was a diver. A second diver surfaced and helped remove the hook from his partner's swim suit. The **Indiana State Game and Fish Commission** said it was the first time a diver had been "caught" in this area.

**ARLINGTON, VIRGINIA**—Fifteen-year-old **Bill Vaughan** discovered the remains of an extinct Ice Age bear while skin diving in **Devil's Den Springs**, near **Ocala, Florida**. **Smithsonian** paleontologists have identified the bones brought to them by the young diver as the fossil remains of **Tremarctos Floridanus**, a bear that lived a million years ago. **Bill** found the bones half-buried in silt 45 feet beneath the surface. The bones recovered by the diver are the only known remains of the ancient animal.

**WASHINGTON, D.C.**—Navy divers **Bob Black** and **Bob Dykes** recovered a wrecked safe, two empty jewel cases and a small metal box in which was part of \$31,000 in jewelry stolen from a patent attorney.

**KUALA LUMPUR, MALAYA**—The world's largest turtles may be in danger of becoming extinct. However, divers hope to perpetuate their existence by helping newborn turtles into the water. The huge turtles weigh a ton when full grown. **Prof. J. R. Hendrickson**, head of the department of zoology at the **University of Malaya**, says only about a thousand pairs of the full grown giant turtles are believed to be in existence. **Prof. Hendrickson's** team of divers have put 200 baby turtles into the sea near **Dungun** over a large area so as not to attract schools of fish. The baby weighs only about an ounce and has many enemies.

**WEST PALM BEACH, FLORIDA**—Undoubtedly the youngest bunch of skin divers in the nation who have officially organized into a club are the **Aquamites**. Eighteen water happy tots from three to seven clambered constantly for their swimming teacher, **Alma Beck**, to take them diving with her. So they formed a club and **Alma** taught the youngsters the basic fundamentals of skin diving and ventured into the ocean with them this summer. **Alma**, incidentally, is well known to **SDM** readers as an avid spearfishing follower. She has entered many competitions, winning state championships and also the **Nationals** in 1959.

**PEARL HARBOR, HAWAII**—The increasing number of deep diving **Islanders** stricken by the bends has become a matter of major concern to the **Navy**. The officer in charge of the two **Navy** recompression chambers at the **Pearl Harbor Submarine Base** reports that most of the eleven bends cases treated this year were very serious. The officer said that a patient hasn't been lost yet, but a couple were touch and go for a while. Improper diving procedures and an ignorance of sensible diving techniques were blamed for causing the bends. The officer advised all divers to obtain a copy of the **Navy's** decompression diving tables and follow them. He added that if a civilian were to pay for the use of the recompression chamber, it would cost them at least three thousand dollars.

**SPRINGFIELD, MASSACHUSETTS**—Diver **Roger Haynes** successfully recovered a would-be suicide victim from the **Connecticut River**. After a two hour perch on a narrow ledge of the **Memorial Bridge**, a young man reportedly distraught over domestic problems, lost his grip and plunged 60 feet into the river. Within seconds, **Roger Haynes**, a member of the **Massachusetts Sea Lions Club**, in a waiting boat, jumped over and quickly reached the young man and pulled him back to the boat. The distraught man was then rushed to the hospital for treatment.

**MARLBOROUGH, CONNECTICUT**—The nearness and quick thinking of a diver has been credited with saving the life of a year old girl. The youngster was pulled from **Lake Terramaugus** and believed dead. **Louis Fiora** who came by just as the girl was taken from the lake, revived the child with mouth-to-mouth resuscitation. **Fiora** was at the lake on a job to recover an outboard motor. He reported the baby was blue when respiration was started.

**DULUTH, MINNESOTA**—Three divers, **Gerald Dahlgren, Robert Childs**, and **Lawrence Waldun**, have discovered the wreckage of a 150 foot three masted schooner in 45 feet of water off the west breakwater at **Two Harbors**. The vessel is believed to be the **Samuel P. Ely** that went down 65 years ago.

**MILWAUKEE, WISCONSIN**—**Wisconsin** divers will be able to have a ringside seat on the salvage work on the **Prins Willem V. Doug Davenport**, news director of **WISN-TV**, will take underwater footage of the salvage work to show the area's television viewers. A contract to salvage the ship has been granted to **Orville Halvorsen** and **Clark Willick**.

(Continued on Page 62)



# TECHNIFACTS

W. LEE COZAD  
ROBERT GIVEN

Technifacts is a new feature and will be used in SDM as readers dictate. If you have a technical or scientific problem or question on oceanography or any related field, send it to Technifacts, c/o Skin Diver Magazine, Box 111, Lynwood, California.

**Q.** On a recent trip to Catalina, I noticed a very unusual fish which I have never seen before in eight years of diving. The fish was inside a shell on the bottom of sea floor at about 150 ft. I brought it to the surface and removed it from the shell. It had a very large head in comparison to its body, very fine serrated teeth, and its body from the head back was white and discolored, very degenerate and twisted to the shape of the shell in a spiral. What is this fish and does it always live in this shell? T.R.E. Santa Clara, Calif.

**A.** The fish you mentioned could only be the "Sarcastic fringehead" or more properly known as *Neoclinus blanchardi*. This fish and the phenomena you witnessed is quite rare. What you observed was the male of the species guarding the eggs that the female had previously laid inside the shell. Since the period of incubation is several weeks, the male's body becomes misshapen and concentrated body fluids cause the lightening of the skin. After the "wee ones" emerge the male is believed to have little chance of survival since he has gone without food for a considerable time and his body is no longer hard, but a mass of soft, white goody for some other predator.

**Q.** I have a double 72 cu. ft. tank and would like to know, if when I pull the reserve valve, do I have 5 minutes per tank or just 5 minutes? I would also like to know if my two stage regulator would still work if one or the other of the stages broke down while in use. Would I still get air from one of the stages? Also does a double 72 cu. ft. hold more air than a triple? Mr. R.N. Hamilton, Ontario, Canada.

**A.** 1. You have approximately 5 minutes left when you pull that reserve, depending at what depth you are.

2. Due to the complexity of a two stage regulator it would be hard to say what might or might not happen if one or the other stage broke down. However, I doubt whether you would get any air. If this did occur and the air was suddenly not coming through to you, simply, without panicking, remove your regulator and put your mouth up to the valve, and by regulating the air by hand return to the surface.

3. A triple what? A triple 38 cu. ft. would hold approximately 114 cu. ft., a triple 44 would hold approximately 132 cu. ft., and a triple 72 would hold—well, you figure it out!

**Q.** If air were left stored in a cylinder would it ever become stale? Also, what type of filter is best to reduce the haze in underwater B & W photography? Mr. A. H., Chicago, Ill.

**A.** Air left in a cylinder, depending upon the type of cylinder, would no doubt eventually become what we consider stale to our taste. This is due to the fact that although this air has been "dried" through filters it still contains a small percentage of water vapor that is impossible to eliminate, and if it were, would make the air so dry your mouth would pucker up. Nevertheless, this water vapor can and will condense on the sides of the cylinder, and if the cylinder is not lined will take on the taste of the metal. The whole idea of air being stale is relative to one's taste, and this will vary with each individual. As far as the problem of haze underwater is concerned, it depends upon what you are referring to, sediments? plankton? lack of proper light? The only thing I can suggest is to try a normal haze filter used in outdoor B & W photography. This would be a medium-red, either Harrison or Ednalite, and stop your camera down 1½ to 2 f stops.

**Q.** Is it legal to spear game fish in Lake Mead, Nevada? J. M., Albuquerque, N.M.

**A.** "Non-game fish may be taken in any waters with spear and/or bow and arrow during open season. It is unlawful to take game fish by spear and/or bow and arrow. No restrictions are placed on any of the equipment used in underwater spearfishing and skin diving. Fishing license is not required." (Nevada Fish and Game Commission, 1957) In order to keep up to date and to learn any new changes it is recommended that you write to the Nev. F & G Comm., Carson City, Nev.

**Q.** Could you give us more information regarding the pure air testing kit you mentioned in the Sept. issue? D.G.S., Walla Walla, Wash.

**A.** Technifacts has been flooded with requests for this particular item. Due to the fact that carbon monoxide is a very toxic gas especially in small amounts under pressure and when used by a diver, we are looking into the availability of a cheap, but reliable kit. The one mentioned in the September issue is an industrial unit and very expensive. We have also been informed that there are some other possibilities that might be explored. We will compile all the available data and present it in the next issue.

**Q.** I am a professional man, and a scientist, that has a desire to contact the same type of persons in the diving world here in the Los Angeles area. Do you know of any group in Southern California with whom I can meet and dive? R.F.J., BSc, Los Angeles, Calif.

**A.** You might contact "Divers Scientific," c/o Technifacts, SDM, Lynwood, Calif. This group is a professional scientific organization that is interested in contacting as many different scientists in this area as possible due to their diversification. They are particularly interested in contacting chemists, engineers, physicists, and ecologists.

## BOATING DIVERS

Send us suggestions to improve boats for diving... anything to make your inboard or outboard, your skiff or yacht safer, more convenient and more enjoyable for diving. Each suggestion published in SDM will net a two-year subscription.

Carroll White  
Mandeville Road  
Covington, Louisiana

An easy way to put on a wet suit, is to turn the suit inside out. Now put your hand or foot into the cuff of the suit and push your arm or leg through like putting on a coat. The suit will peel on with no trouble or talcum.

Howard J. Stone  
188 Fox Street  
Buffalo 11, New York

With an electric wood burning tool or a small soldering iron you can easily burn identification initials or designs on equipment. Put the marks on the underside of fins, and other places where they will not be too noticeable. You can even melt initials on lead weights.

Gerald K. Thorpe  
2363 N. 65th St.  
Milwaukee 13, Wisconsin

A simple, safe and practical marker buoy can easily be made from an empty plastic detergent bottle. Simply drill a small hole through the top of the cap and fasten a screw eye to it with two nuts. A large buoy can be made from a one gallon plastic bleach bottle, which usually has a tying handle already on it.

Raoul G. Rehner  
6405 Santona St. #1  
Coral Gables 46, Fla.

For an effective non-abrasive, non-skid surface, lay a piece of fiberglass window screening on the surface to be treated, then paint over and through it with epoxy paint. One or two coats will cover and hold the screening yet retain the woven texture, which will prevent skids but not sand your hide off. Works fine on surf or paddle boards, too.

Albert R. Montes  
4 Bartlett Road  
Danvers, Mass.

The new tubular boarding ladders made of aluminum tubing have a tendency to float up after hanging over the side of a boat. To keep them from floating I tied two of my weights to the bottom rung, now it stays down in the water where it belongs... at least until the tubing fills with water.

Jeff Slocomb  
39 W. 67th St.  
New York 23, N. Y.

When the two ends of a straightened clothes hanger are sewn tightly to the corners of the white stripe of a Divers Flag, making the flag taut, and another down the other way through the middle of the flag, it will keep the flag displayed on a windless day and also keep it from flapping around on a windy day. It is then much easier to see.

## The Deepest Dive Ever Made

A record dive of 728 feet in the cold, dark waters of Lake Maggiore in Switzerland and back to the surface was safely accomplished recently by a young Swiss inventor and a magazine editor. Hannes Keller, 26, a former mathematics teacher, and Life magazine Senior Editor Kenneth MacLeish, as an observer, made the descent and return in 60 minutes.

According to rules that govern current diving practice, the dive and safe return from it within such a short time is impossible without incurring the risk of the bends, the crippling, sometimes fatal decompression sickness. The previous world's record dive of 600 feet, made in 1956 by a Royal Navy boatswain named George Wooley, required twelve hours of decompression time. Keller and MacLeish were able to succeed in their mission by using Keller's revolutionary and still secret method of supplying various combinations of gases at different underwater levels. The amounts of the secret gas mixtures and the depths at which they are applied were determined by a series of mathematical tables formulated by Keller and Dr. Albert Bühlmann, a physiologist at the University of Zurich.

Each diver was dressed in several layers of clothing, including a tight-fitting foam-rubber "wet" suit, long underwear, sweat

suits, wool socks and a "dry" suit made of rubber-coated cloth. A soft rubber helmet with mask and mouthpiece was sealed to the neck of the suit with a pair of steel rings. Thus swaddled and waterproofed, the men were protected against the cold-water depths that were only four degrees above freezing.

The descent was made from a big raft equipped with a large pulley wheel rigged by cable to a small platform or diving stage. (The platform was required to carry six tall gas tanks from which the gas mixtures were supplied.) Before entering the water, Keller and MacLeish breathed deeply from oxygen tanks for about an hour. Then, with air hoses and telephone lines connected and with emergency supply tanks strapped to their backs, they stepped onto the diving stage and were lowered beneath the surface.

During the dive there were eight gas mixture changes (four going down and four coming up). For the first 160 feet the divers were air-fed by a long drop line tube attached to tanks aboard the raft. At a depth of 55 meters the drop line was disconnected and the terminals of the air hoses were switched to the gas-mixture tanks lashed to the diving platform. A few minutes later, at the 330-ft. level, connections were made to a deep-water mixture of gases. But the "air" was bitterly cold and there was barely enough of it breathe until terminals were tied into a reserve tank.

The last stage of the descent was made rapidly, in utter darkness relieved only by the glow of flashlights. The final estimated depth (700 feet—about 50 feet above the lake bottom) was reached only seven minutes and 30 seconds after entering the water.

The divers stayed there only a few moments, pausing only long enough to scribble messages to each other on Lucite slates. Keller wrote: "Cold, but oho!"

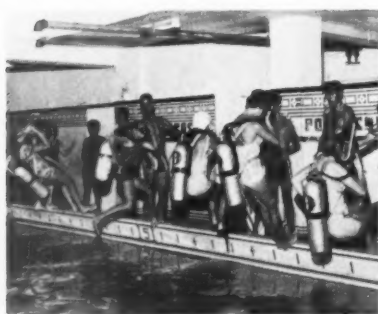
The long, dangerous ascent was made in slow stages, changing the gas mixture and waiting out the necessary decompression time to reduce the possibility of the bends. The last 50 feet took 26 minutes.

At that stage, MacLeish relates, he noticed that Keller had blood and foam inside his mask. But Keller shrugged it off. Later, they learned it was an "ear squeeze," painful but not serious.

Keller and MacLeish broke the surface just one hour after they had begun the dive! The sealed-and-witnessed depth recorder was opened. It showed 222 meters: 728 feet. A new world's record.

To celebrate the event, crewmen, official observers and the divers drank champagne from a hollow plastic figurine of a mermaid that had been attached to the platform during the dive.

The dive was witnessed by an official observer from the U. S. Navy, Lieut. Commander Charles Aquadro. ➤



## Miami YMCA Scuba Training Course Started

Miami's downtown YMCA recently instituted a program of co-educational scuba diver training in conjunction with adoption of a national aquatic safety course.

"The Greater Miami area has some of the finest waters for diving in the continental U. S., and we are pleased to offer scuba training in addition to our many other activities," said J. P. Leveritt, director of physical training at the "Y."

We find that scuba training improves muscular, respiratory and cardiovascular fitness of the individual, thus providing an added margin of safety—especially in an emergency," Leveritt said.

"The courses have proven very popular," Leveritt added, "and we have numerous instances of two or more members of a single family attending the bi-weekly classes together."

Chief instructor in the YMCA scuba program is Philip N. Amero, former operator of a New England diving school, and well-known to Skin Diver Magazine readers for his many contributions as well as his keen interests in water and diving safety. ➤

## \$850,000 Pool To Be Dedicated

The wonderful world of aquatic—from water ballet to water polo—will be saluted when the City of Commerce, Calif., dedicates its \$850,000 Aquatorium, December 6-10, 1961.

The Aquatorium, a dream of the Commerce city fathers even before the city was incorporated in January, 1960, will be the most modern recreational area in the country. The main building, 100 by 180 feet, houses two swimming pools—one for instruction and the use of young swimmers and the other for general use and for competition.

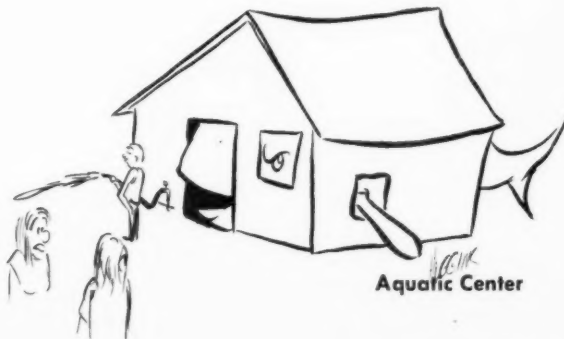
From the inaugural ceremonies December 6, under the direction of Al Tillman, to the closing Admiral's Ball finale on Saturday night, December 10, the focus will be on the aquatic world. Swimmers, divers, and competitive teams from all over the world, have been invited to participate in the aquatic spectacular. King Neptune will reign as dignitaries pour flasks of water from all the great rivers and seas of the world into the waters of the Aquatorium. ➤

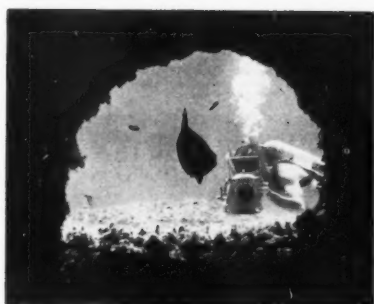
## Calif. DFG Permit Required For Suction Dredging

Effective September 15, by law adopted by the 1961 State Legislature, before any person uses any vacuum or suction dredge equipment in any river, stream or lake in California he must submit a permit application to the Department of Fish and Game specifying the type and size of equipment to be used and the locations where such equipment will be used, reminds the DFG.

If the department determines that the operation will not be harmful to fish, it will issue a permit to the applicant. If the applicant operates any equipment other than specified in the permit, or conducts such operation outside the area designated in the permit, or if any person conducts such an operation without first securing a permit, he will be guilty of a misdemeanor under terms of the law.

Permit applications and the permits may be obtained from Department of Fish and Game offices. ➤





## Fifth International Underwater Film Festival

"King Neptune's Underwater Zoo" is the theme for the 1962 International Underwater Film Festival on January 6 and 7, 1962, at the Santa Monica Civic Auditorium. Al Tillman, president of Underwater Film Festival Inc., who has just completed an around-the-U.S. tour and corresponding with Worldwide Festival representatives reports comprehensive studies of strange sea creatures. "The outstanding underwater photographers have been limiting their efforts to detailed studies of a single phenomenon," says Tillman. "It's far more exciting to see a complete episode in the life of one of these creatures than a mere glimpse. It's not only scientifically of great value, but it's breathtakingly entertaining. The audience will be on the edge of their seats throughout the festival."

Sharks continue to dominate the interest circle for most divers and a series of special shark films has been prepared for previewing on January 6. The giant octopi of Puget Sound starring in a new film being prepared for the Seattle World Fair will also be on view.

Spearfishing will be closely analyzed in a number of films through which the audience will stalk the most challenging creatures of the sea with world champions. Names such as De Sanctis, Craig, Cousteau, Hass, Boren, Church, and Ollis are now in nomination for their film achievements of the past year. Final selections by the Festival committee will not be made until a few weeks before the event. Winners of the Underwater Photographic Exhibition will also be featured.

Deadline for entries in the competition is December 14, 1961. Judging will be December 15-16, 1961.

This year, the Festival has prepared an interesting package program of deluxe charter diving, photography clinics, and the big film showings for out-of-towners. Interested parties can secure detailed information by writing Underwater Film Festival, attn.: General Manager Paul McCormack, care of Skin Diver Magazine.

## Scientists Head for Islands To Study Poisonous Marine Life

Dr. Bruce Halstead, author of "Dangerous Marine Animals" is presently in the Hawaiian Islands for a detailed study of poisonous and toxic marine species. His study will include both organisms which are capable of inflicting poison by spines, biting, etc. and specimens which are poisonous or toxic to eat.

Accompanying Dr. Halstead is well-known West Coast diver Bob Retherford, who will handle the photographic end of the expedition. Retherford is a member of the Underwater Photographic Society and a medal winner in the last International Film Competition. He plans to use both motion picture and still camera to record the specimens underwater.

Live and frozen specimens will be brought back for further study and a comprehensive report is expected on the government sponsored five week trip.

**NEMROD**  
BY SEAMLESS

# GUNS

Exclusive "All-Season" Charge

## PNEUMATIC POWERED

NEMROD "Torpedero"—unmatched for power and accuracy against any gun its size! **Muzzle velocity**—100 ft. per second compared to 75 ft. per second for the finest double rubber arbutus. **Accuracy**—average—1" off center at 15 ft. compared to 10" off center arbutus. **Penetration**—155 ft. lbs. of impact compared to 124 ft. lbs. of impact. **Maximum loading force required**—90 lbs. compared to 120 lbs. of spring and rubber powered guns. **Effective range of Nemrod** **\$19.95**  
**"Torpedero"**—10 ft. **\$27.50**  
**NEMROD "Goleta"**—a marvel in precision, power, size and weight. **Effective range**—12 ft. **\$27.50**  
 Three more models available—range up to 50 ft. underwater. Write for catalog.  
 Send check or M.O.  

**RICHARDS** AQUALUNG CENTER  
 233 W. 42nd St.  
 New York 36, N. Y.

## Looking for a PUBLISHER?

Your book can be published, promoted, distributed by successful, reliable company noted for prompt, personal service. All subjects. Free Editorial Report. Inquiries also invited from businesses, organizations, churches, etc. Send for Free Booklet. Vantage Press, Dept. SD, 120 W. 31, New York 1.

U. S. DIVERS  
DACOR
SPORTSWAYS  
VOIT
SWIMASTER  
DEMONE
SEACRAFT  
HEALTHWAYS

**Personalized Prompt Delivery**

JOIN OUR FAMILY OF SATISFIED DEALERS AND CUSTOMERS TODAY

## UNDERSEA DIVERS SUPPLY

3568 West 95th Street
GA 5-0822
Evergreen Park, Illinois

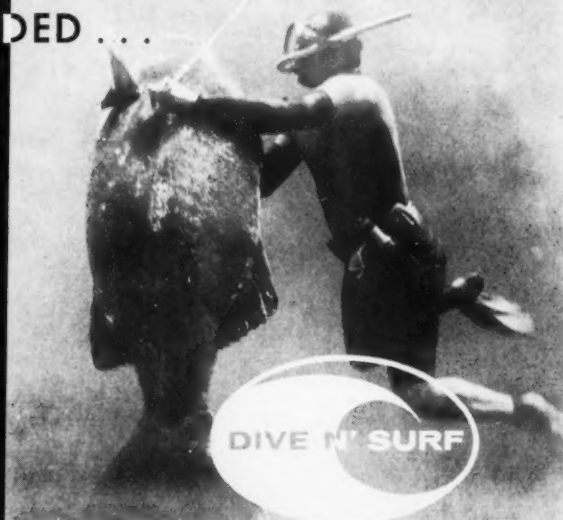
## WHEN ACTION IS DEMANDED ...

A DIVE N' SURF THERMOCLINE SUIT will insure that you will be IN THE WATER to take advantage of all the exciting summer events. Big fish, sightseeing, or gold diving—whatever your underwater specialty is, you can be sure that the warmth and comfort of this suit will be your best asset in many seasons of memorable diving.

The THERMOCLINE SUIT is available only at DIVE N' SURF—and only as a custom suit. Individual suit charts with measuring tips for both men and women will be sent to all suit inquiries along with suit samples and price list.

## DIVE N' SURF

504 NORTH BROADWAY  
REDONDO BEACH, CALIFORNIA  
FR 9-1473 SP 2-1781





# NEW PRODUCTS

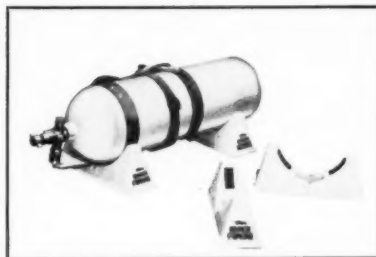
NEW PRODUCTS is a regular editorial feature and is not comprised of paid advertising. See your local dealer, or write to the firms mentioned for additional information.



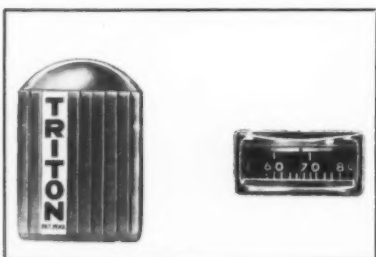
**SEA BEAM**—Designed specifically for rugged undersea duty, this new scuba light is operated by a quarter inch push on a magnetic slide which activates a hermetically sealed interior relay, eliminating corroded contacts and shorted switches. Underwater tests show the Sea Beam to be leakproof at 100 ft. depth. \$16.95 complete with battery. Write: Mr. Norman Bates, Guest Products Div., ITI Electronics, Inc., 369 Lexington Ave., Clifton, N. J.



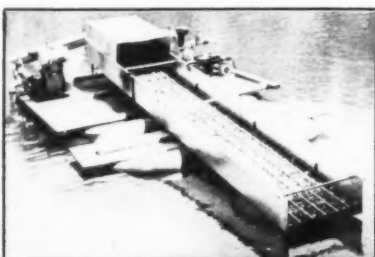
**GLASSPAR CITATION**—Combines great Glasspar fiberglass hull and deck design to offer the skin diving boat enthusiast a world of water fun and adventure in pure comfort. The 16-foot runabout comes with back-to-back front seats with foldaway aft-facing seats and neat transom quarter seats. For the sunbather, the Citation has reclining fold-out lounge seats available as an optional extra. Glasspar Company, 19101 Newport Ave., Santa Ana, Calif.



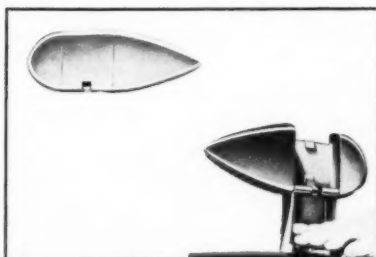
**BLOCK CHOCKS**—For safe transporting of tanks in cars. Produced from strong lightweight plastic, prevents tanks from moving by form-fitting the tank and harness clamps. Rubber cushioned to eliminate rattles. BLOCK CHOCKS can be used as horizontal storage racks in the home or boat, and can be permanently fastened with screws or nails. Retailing for \$3.79 pair, they are available from Sea-Well Corporation, Box 443, Des Plaines, Ill.



**TRITON THERMOGAGE**—This precision instrument rapidly indicates temperature change through an aluminum housing and thermo conductive fluid. The dial moves under the indicator and is read from the top so that it can be attached to the harness and lay flat. Actual size: 1 1/4" high, 1 1/4" wide, 5/8" thick. A water Temperature Exposure Chart is included in the \$7.95 retail price. Order from Sea-Well Corporation, Box 443, Des Plaines, Ill.



**"JET" GOLD DREDGE**—Effective in 6 inches to 50 feet of water, the portable dredge has a 16 foot sluice box; two 10 hp engines turn high pressure pumps, removing overburden to a depth of 35 feet at a rate of 15-20 yards per hour. Tailings are deposited 40 feet or more from working area. Coco matting under "Hungarian Rifle" saves fine gold as well as nuggets. Write The Nugget Farm, Route 2, Box 554, Placerville, California.



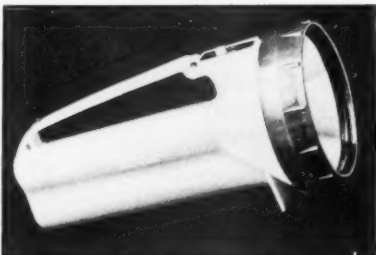
**FOLD-A-STEP**—provides skin diving boat owners with a convenient, permanently attached, yet inconspicuous, step which makes the difficult task of boarding from the water easy for divers. When not in use, the step folds up and is completely enclosed and out of the way. Available in right or left hand types for port and starboard mounting, at \$14.85 from Fleet Products Company, P. O. Box 1188, Newport Beach, Calif.



**SUPER RONDINE FINS**—Transforms the usual negative blade area into a positive thrust area, creating continuous propulsion on the downward as well as the upward thrust. This extra propulsion is obtained by two blade vents covered by a hinged flap which shuts automatically on the upward thrust and opens on the downward thrust. Retailing for \$14.95, they are a product of Healthways, 3669 Seventh Avenue, Los Angeles, Calif.



**JOHNSON V-75 ELECTRAMATIC**—New model has forward and reverse clutches operated on a new principle of electro-magnetically controlled self-energized coil springs through which the gears are driven. The new shift is controlled by a single lever which combines throttle control and gear shift in one smooth operation. Standard equipment includes 20 amp alternator-generator. Johnson Motors, Waukegan, Illinois.



**SKIN DIVERS' FLASHLIGHT**—Actually floats with beam shining straight up in the air. Of watertight design and unbreakable, waterproof Marlex construction, it won't rust, mildew or corrode. 80,000 candlepower with 4 1/4" reflector lets you see up to a mile. Compact and easy to operate, the skin diver's flashlight sells for \$9.95. Shoulder strap is extra. For additional information write: Beachcomber Products, P. O. Box 1056, Manchester, N. H.

## ROBBER SHARKS

(Continued from Page 37)

sharks. A couple of clues as to their intent are the positioning of the pectoral fins and the speed and manner of their swimming. These in the pass were not to be taken lightly. They swam fast and erratically, almost with snaps or jerks of their body. The pectoral fins were slanted down, perhaps 30 degrees off the horizontal. The mouth slightly open and the nose tilted very slightly up. They really leave no doubt as to their ferocity and danger.\*

Of course they were attracted by the killing of the fish. But here is a most interesting fact I have witnessed several times. Immediately upon spearing a fish, several sharks would rush to the scene—but they would respond in exactly the same manner if the diver missed his fish! They were conditioned to the sound of the gun, not only to the smell of blood or struggles of the wounded fish.

Here is how you fish these waters. One diver has the "honor" of being the hunter. He dives toward a nice fish. But along with him and flanking him are four divers with their long poles. As soon as the spear hits the fish sharks rush in to take the catch. This is where these spike-tipped poles come into play. The flank divers jab at the sharks to keep them away from the speared fish. It is really tough and go. Sometimes there are just too many sharks and the fish is lost. As the four boys jab away, the diver with the fish is steaming toward the surface pulling in the spear shaft as fast as possible.

And about now, protective echelon number 2, of four to six divers is coming down to relieve and reinforce the first four. The sharks get very excited and more of them move in toward the speared fish or one of the divers. They must take the flippers to be fish as it is usually toward the feet of a diver that they swim.

Only repeated jabs on the snouts of these sharks discourage them from their pursuit of fish or man. They swerve away, swim off 20 feet or so, then turn and attack again and again. With luck this team effort gets both fish and men back to the protective shallow reef. The sharks stop their attack just at the shallow edge of the reef and after a few moments return to the bottom of the pass and wait for the next round.

This is great sport for the Tahitians. To participate in this sport of spearfishing was one of the greatest diving thrills I have ever experienced.

I spent several days in Rangiroa and had many other great adventures and shot some wonderful underwater movie footage of these goings on. Admittedly, I don't have nose-to-nose closeups, but I still suffer from a very slight case of panic in close company of a dozen seven-foot sharks.

\*"Shark Attack," SDM June, 1961—similar appearance before actual attack.



Aquatic Center



## You'd have to be a fish to be more comfortable!

The NORMALAIR Underwater Breathing Set lets you do everything a fish can do—and talk as well. This set is really the most—most convenient, most complete, most safe—because it's designed and manufactured by one of the world's largest producers of breathing and air control equipment.

Amateurs and instructors alike rate NORMALAIR tops for underwater safety and pleasure. Here are just a few of the reasons:

- **UNDERWATER SPEECH**—special diaphragm allows oral contact. Ideal for instructors, as there is no need to surface to speak
- **FULL FACE MASK**—for excellent vision, safety and natural breathing. You keep warm and comfortable
- **AUTOMATIC REGULATOR**—always supplies the right amount of air
- **INDEPENDENT WEIGHT RELEASE**—the fastest way to jettison all ballast
- **UNCRUSHABLE AIR SUPPLY TUBES**—can withstand 10,000 lbs. pressure
- **CONVENIENT WEIGHT POUCH**—contains ten 1 lb. discs

### Other standard features include:

Wide-vision vizor • Quick-release harness mechanism • One-handed ballast adjustment Fully adjustable harness • Finger tight pressure connections • Comfortable, contoured back plate • Single or twin cylinder adaptions • Pressure gauge supplied as standard • Stainless steel cylinder straps • Comprehensive instruction manual • Complete range of accessories and optional equipment.



Get the whole story in an illustrated brochure. Write today to:

**NORMALAIR (CANADA) LTD.**  
1425 THE QUEENSWAY, TORONTO 14, ONTARIO, CANADA



Diving Equipment and Compressed Air Stations—a national listing to serve the local and traveling diver. Advertising rate is \$30 for 6 consecutive ads—\$50 for a full year. PAYMENT MUST ACCOMPANY COPY. Send all material to Compressed Air Stations, c/o Skin Diver, Box 111, Lynwood, Calif.

## ALABAMA

**McWHORTER ENGINEERING COMPANY**  
Plant: 1053 Gadsden Road, Birmingham  
Phone: VE 6-2814 or WO 1-9598  
24 Hour Service, large parking area

**SOUTHERN SKIN DIVER'S SUPPLY**  
506 So. 45th St.  
B'ham, Ala.—Gulf Charter Information  
Open year round WO 1-3052 \$1.25

## ARIZONA

**HOLLENBECK'S**  
4041 North Seventh Avenue  
Phoenix, Arizona CR 7-9163  
8-8 six days a week; 10-4 Sundays \$1.50

**SPORTS SPOT**  
4226 East Indian School Road  
Phoenix, Arizona CR 4-3863  
Hours: 9-6 \$1.50

## CALIFORNIA

**TAHOE DIVING ASSOCIATES**  
So. Tahoe Scuba Shop, Al. Tahoe, Cal., KI 4-4332  
No. Tahoe Scuba Shop, Tahoe Vista, Cal., LI 6-3368  
Sales, Service, Rentals, Instructions

**SKI N' DIVE**  
14610 Lakewood Blvd., Bellflower ME 4-1221  
Mon.-Thurs. 9-7; Fri. & Sat. 9-9; closed Sun.  
Good ole' smogless air \$1.25

**SUNLAND SPORTS LODGE**  
8677 Wilshire Blvd., Beverly Hills OL 2-4990  
Hours: 10-7 Mon.-Sat. 12 fills \$10.00  
Wet Suit Rentals, Lung Rentals and Repairs

**AL'S SPORTING GOODS**  
Front of Pier, Highway One  
Cayucos, California WY 5-3748  
Hours: 7-9 \$1.25

**SAN DIEGO DIVERS SUPPLY**, South Bay Branch  
1084 National Ave., Chula Vista, Calif.  
Hours: 9-6, 7 days a week \$1.25  
The air you love to breathe

**BLUE STAR SUPPLY**  
2156 Pacheco Street  
Concord, California  
Certified Air 9:30-5:30 \$1.00

**LAGUNA SEASPORTS**  
Costa Mesa Store  
2121 Harbor, Costa Mesa, Calif.  
Daily 9:30-5:30; Sat. & Sun. 8:30-6:00 MI 6-2572

**BLACK BART'S MARINA**  
34144 East Highway, Dana Point  
Closed Tuesdays GY 6-5891  
Daily 9-5:30; Sat. & Sun. 8:30-5:30 \$1.25

**JOHN RILEY SCHOOL OF SWIMMING AND DIVING**  
11200 Old River School Road  
Downey, California WA 3-3272  
Private and Class Instruction; Equipment; Air

**PACIFIC DIVERS**  
1426 Colorado Blvd., Eagle Rock, Calif.  
Clinton 5-7831  
Hours: Noon to 10 p.m., Tues. thru Sat. \$1.25

**LOUIS THOMAS MARINE CENTER**  
343 South Atlantic Boulevard  
East Los Angeles, California AN 3-0974  
Hours: 9-6; Tues. & Fri. to 9 p.m. \$1.25

**PONY EXPRESS SPORT SHOP**  
17460 Ventura Boulevard  
Encino, California ST 9-6031  
Complete Line; also Rentals & Repairs \$1.25

**HOLLYWOOD SPORTING GOODS**  
6551 Hollywood Blvd.  
4609 Crenshaw Blvd.  
Daily 9-6; Mon. & Fri. 9-9 HO 4-1101  
AX 5-3138 \$1.25

**STAR SPORTING GOODS**  
Skin Diving Experts  
1645 N. Highland, Hollywood, Calif.  
Fri.-Mon. 'til 9; Daily, Sat. 'til 6 HO 9-1969  
6 fills \$5.00  
1 fill \$1.25

**DIVER'S HUT**  
7928 State St.  
Huntington Park  
Open till 10 p.m., closed Sun., Tues. LU 1-7782 \$1.25

**BLUE FIN AQUA SHOP**  
910 Centinella Blvd.  
Inglewood, Calif.  
Hours: 9:30 to 9:00, closed Sun. OR 4-1739 \$1.25

**SPORT CHALET**  
951 Foothill Blvd.  
La Canada, Calif. SY 0-2717  
12 fills \$10.00  
Single \$1.25

**LA JOLLA DIVERS SUPPLY**  
7522 La Jolla Blvd.  
La Jolla, California — Cert. Air  
Hours: 9:30 to 5:30, closed Mon. \$1.25

**JIMMY JOHN SPORTS CENTER**  
15867 Amar Road, La Puente, Calif.  
9 to 9 Six Days; 9 to 6 on Sunday  
Single Fills \$1.25; Buy 9 Fills, Get 10th Free 12 Fills \$10

**AQUA DIVERS**  
1901 Pac. Coast Hwy. (Along P.V. Hills)  
Lomita, Calif. DA 6-6663  
Hours: 9-9, 7 days a week \$1.25

**PENGUIN SHOP**  
701 East Artesia, Long Beach, Calif.  
Phone: GA 3-0815 \$1.25  
Hours: 9:00 a.m. to 7:00 p.m., 7 days

**UNDERWATER SPORTS SHOP**  
11—39th Place (Belmont Pier)  
Long Beach, California GE 9-0297  
Hours: 10:00 a.m. to 8:00 p.m. 7 days \$1.25

**ALPINE SKI & SPORT SHOP**  
8319 Lincoln Blvd., Westchester  
Los Angeles, California  
Open 8 a.m. to 10 p.m. Mon. thru Sat. \$1.25

**ART'S SKIN DIVING SHOP**  
660 West Florence Avenue  
Los Angeles 44, California PL 8-6059  
Hours: 10-7; Fri. 'til 8 \$1.25  
12 refills \$10.00

**CERTIFIED DIVERS**  
4420 East Holt Avenue  
Montclair, California  
Hours: 10:00 a.m. to 6:00 p.m. \$1.25

**AQUATIC CENTER**  
4323 W. Coast Hwy.  
Newport Beach, Calif.  
Hours: 9-6:30; 8-6:30 weekends \$1.25

**CAL-AQUATICS**  
7423 Lankershim Boulevard  
North Hollywood, California PO 4-7344  
Hours: Mon.-Thurs. 9-6:30; Fri. & Sat. 9-9 \$1.25

**STEELES SPORTING GOODS**  
5815 College Ave.  
Oakland, Calif.  
Hours: 9:30-6; Thurs till 9 p.m. \$1.00

**DIVE N' SURF**  
504 North Broadway  
Redondo Beach, California FR 9-1473  
Hours: 9-6; Closed Tuesdays SP 2-1781  
12 fills \$10.00

**MEL'S AQUA SHOP**  
1911 South Catalina Avenue  
Redondo Beach, California  
Hours: 9:30-6:00, closed Tues. 12 fills \$10.00

**THE DIVING LOCKER**  
4825 Cass Street  
Pacific Beach, San Diego, Calif. \$1.25  
Daily 9-6; Fri. 'til 9

**SAN DIEGO DIVERS SUPPLY, INC.**  
4004 Midway Dr., San Diego 10, Calif. AC 4-3439  
Hours: 7 to 10  
Certified Air \$1.25

**SKI N' DIVE**  
619 East Valley Boulevard  
San Gabriel, California  
Atlantic 8-0111 \$1.25

**NEAL SPORTING GOODS**  
216 E. 4th St., Santa Ana, Calif. KI 7-5723  
Daily 9-6; Mon. and Fri. 9-9  
Diving Experts, Complete Service 12 fills \$10.00

**THE DIVERS DEN**  
Breakwater, Marine Center  
Santa Barbara, Calif. \$1.25  
Hours: 9-6; Friday 'til 9

**VALLEY DIVERS CENTER**  
13731 Riverside Drive  
Sherman Oaks, California ST 4-6612  
Mon.-Thurs. 9-6; Fri.-Sat. 9-9 \$1.25

**TEMPLE SPORTING GOODS, INC.**  
9514 East Las Tunas Drive  
Tempe City, California AT 6-3308  
CU 3-4452  
Hours: 9:30-6, Mon. and Fri. 9:30-9 \$1.25

**WATER GILL DIVING SHOP**  
2547 Lincoln Blvd.  
Venice, Calif. EX 1-1210 - UP 0-8808  
Hours: 6 days 9-6; Fri. till 9; Closed Tues. 70 cu. ft. \$1.25

**CALIFORNIA DIVING SUPPLY**  
2316 East Main, Ventura, Calif. MI 8-1406  
Hours 9-6; Fri. & Sat. 9-9; Closed Tues.  
Sales, Service Rentals, Air \$1.25

**SKI N' DIVE**  
1900 Westwood Blvd., Westwood GR 8-0609  
Mon.-Thurs. 9-7; Fri. & Sat. 9-9, closed Sun.  
Good Ute Smogless Air \$1.25

## CONNECTICUT

**NEW HAVEN DIVING CENTER, INC.**  
14 Hemingway, East Haven, Connecticut  
Week days 5-7; Sat. & Sun. 10-6 HObart 7-0163  
Closed Wed. & Thurs. \$1.25

**INTERNATIONAL SPORT DIVING CENTER**  
79 Seaview Avenue, East Norwalk TE 8-3260  
Rentals, Refills and Supplies  
"The Wonderful World of Skin Diving in One Store"

**AQUA SPORTS DIVING CENTER, INC.**  
212 Thames St., Groton, Conn. HI 5-4749  
1-8 Daily; 10 a.m.-5 p.m. Sat.  
Instruction—Rentals—Charter Boat

**MADISON SCUBA CENTER**  
Boston Post Road  
1/4 mile East of Route 79  
Madison, Connecticut \$1.25

**CHRISTENSEN TOOL & ENGINEERING, INC.**  
Mfgs. of Viking Diving & Air Breathing Equip.  
500 West Avenue, Norwalk, Conn. \$1.25  
Hours: 9-5:30

**SURPLUS TRADING POST INC.**  
153 Boston Post Road, Orange  
SY-92037 Immediate refills \$1.25  
Hours: 8 a.m.-10 p.m. Mon.-Sat.

**WILL JACOBS**  
631 S. Quaker Lane  
West Hartford, Conn. AD 2-8719  
Noon to 8 p.m. daily; 10 a.m.-6 p.m. Sat.

## DELAWARE

**DINNER BELL INN FISHING TACKLE AND DIVING SHOP**  
Cor. Christian and 2nd St.  
Rehoboth Beach, Del.; 8-9 Daily 227-3161  
\$1.50

## DISTRICT OF COLUMBIA

**AMERICAN WATER SPORTS CO.**  
1113—13th St., N.W., Washington, D. C.  
Sales, Rentals, Repairs, Instructions EX 3-2939  
Wholesale and Retail all major lines \$1.25

**8 FATHOMS DEEP**  
408—8th St., N.W., Washington 4, D. C. DI 7-8995  
Extensive Retail & Wholesale; Scuba School; Club  
Meeting Hall; Dive Tank on Premises; 9-9 \$1.00



## FLORIDA

### SEA CENTER

U. S. 1, Big Pine Key, Florida  
Phone 872-2252  
Rentals, Sales, Service \$1.50

### CLEARWATER PRODUCTS

1123 Seminole Street  
Clearwater, Fla. Phone 3-3145  
Hours: 8:30-5:00 \$1.50

### AQUA PEER

Underwater Wonderland  
Crystal River, Florida  
Rentals—Sales—Boats \$1.25

### VACATION MARINE AND FISHING SUPPLY INC.

100 E. Beach Blvd., Dania, Florida  
One block off U. S. 1 on road to Hi-Li  
Rentals—Trips—Air.

### HARBOR BEACH TACKLE & MARINE

2240 S.E. 17th St., Causeway, Ft. Lauderdale  
Rentals, instructions, repairs, trips  
Soap/water lub compressor, closed Mondays

### LAKELAND SKIN DIVING CENTER

715 Alicia Dr., Lakeland  
Sales, service, rentals, instruction  
Phone: MU 3-4244

### SKIN DIVER'S HEADQUARTERS

South of Marathon Airport  
Marathon, Florida  
Formerly Bartlett Bros.

### MISSILE SKIN DIVING SUPPLY

Box 756, Merritt Island (Cocoa Causeway)  
Diving Specialty Shop - Jewish Center  
Ringside to Cape Canaveral NE 6-3077

### UNDERWATER SPORTS, INC.

2219 Biscayne Blvd., Miami, Florida  
Soap lubricated compressor—Open 7 days  
Retail, Wholesale, Rentals and Trips \$7.5

### WATER WORLD, INC.

1331 Biscayne Blvd., Miami 32, Florida  
All services for skin divers FR 3-7241  
Hours: Mon.-Sat. 8:30 a.m.-7:00 p.m. \$7.5

### PALM BEACH SKIN DIVERS SUPPLY

623 South Olive  
West Palm Beach  
Complete stock, air, rentals, repairs

## GEORGIA

### GEORGIA DIVERS SUPPLY, INC.

Georgia's Only Aqualung Center Ph.: 525-5216  
319 Spring, N.W., Atlanta 8, Georgia  
9 to 6 Mon.-Sat. \$1.50

## HAWAII

### KAUAI SKIN DIVING & SURF CASTING CO.

Box 711, Koloa, Kauai, Hawaii Phone: 746-725  
Sales, Rentals, Refills \$1.25  
Visit the Garden Island's Blue Waters

## ILLINOIS

### AQUA HOBBY DEN

8526 S. Racine, Chicago, Ill.  
Phone: ST 3-0130 Hours: 9-6 Mon., Fri. 9-9;  
Sat. 9-4; Air-Gas Station, Sun. 8-6

### THE DIVE-IN

1440 West Fullerton, Chicago, Ill.  
Hours: 9 a.m. to 9 p.m.; Sun. 9 a.m. to 1 p.m.  
Rix pure air \$1.50

### VERN'S SCUBA CENTER

3917 N. Ashland Ave.  
Chicago 13, Ill.  
Hours: 9-9 \$2.00

### ERICKSON POOL SUPPLIES, INC.

4944 W. Irving Park Rd., Chicago 41, Illinois  
SPRING 7-6530  
Hours: Mon.-Sat. 8-9; Sun. 7-12

### SKIN & SCUBA DIVING SHOP

3853 West North Ave., Chicago, Illinois  
24 hr. Service. Phones: SP 2-5164, CA 7-3765  
Sales, Service, Instruction, Rentals

### SKEET MARINE DIVING CENTER, INC.

Lessons, Rentals, Sales, Service  
1945 Maple Street, Evanston, Ill.  
University 9-9830. 24 hrs. Service \$2.00

### NORTHWEST AQUATICS

3552 River Road 678-6661  
Franklin Park, Illinois  
Sales, Service, Instruction, Rentals

### WEST SUBURBAN DIVERS

Mannheim & Roosevelt  
Hillside, Illinois LI 4-1660  
Sales, Service, Instruction

### BOB'S CONOCO SERVICE

Half block East of Rt. 83 on U. S. 12  
Mt. Prospect, Illinois  
CL 5-9876

## UNDERWATER SALES & SERVICE

520 East Ogden Avenue, Naperville, Illinois  
Lessons—Rentals—Repairs—Air Fills  
Phone ELmwood 5-3680

### CENTURY SALES, INC.

315 West Ogden Avenue WO 9-4660  
Westmont, Illinois  
Water Sports, Skin & Scuba Supplies

## INDIANA

### HANSEN'S DIVERS SUPPLY

3750 Ridge Rd., Highland, Ind.  
Rix-Water-Lubricated-Compressor  
Hrs.: 10-6; Mon., Thur., Fri. 10-9; Sun. 9-11 a.m.

## IOWA

### AQUA SPORTS

Everything for the Skin Diver  
4026 Jersey Ridge  
Davenport, Iowa \$1.50

### KUNKELS SPORTING GOODS, INC.

309 West 2nd St.  
Davenport, Iowa  
Everything for Every Sport \$1.50

### MATT LEYDEN'S DIVE SHOP

720 20th Street BL 5-3712  
West Des Moines, Iowa; 5 p.m. to 10 p.m. daily;  
6:30 a.m. to 10 p.m. weekends \$1.50

## KENTUCKY

### TINSLEY'S GUN & MARINE

7915 Shelbyville Rd., Louisville, U.S. 60  
Kentucky's Diving Headquarters  
Rentals, Instruction, Service, Air TW 6-0051

### WATER WORLD, INC.

308 North Woodlawn Ave., Louisville 14, Ky.  
Kentucky's Exclusive Dive Shop EM 8-3028  
Regulator repair, rentals, instructions, air \$5.0

## LOUISIANA

### HARBUCK SPORTING GOODS, INC.

304 Texas Street  
Shreveport, Louisiana  
Hours: Mon.-Sat. 9 to 5 \$1.50

## MAINE

### UNDERSEA ENTERPRISES, INC.

69 Government St.  
Kittery, Maine  
Hours: When we are not diving \$1.50

### GAMMON'S PHARMACY

Complete Skin Diving Dept.: Tanks, Regulators  
Suits and Accessories; 7:30 to 9:00 p.m.  
Main St., Limestone, Maine \$2.00

### CONGRESS HARDWARE & PAINT (TOMMY'S)

273 Congress St., Portland, Maine  
Complete line skin diving eqpt. SP 2-5357  
Sales, service, rentals, lessons 10 fills \$10.00

## MARYLAND

### DIVER'S DEN

8105 Harford Road NO 8-6866  
Baltimore 14, Maryland (Parkville) NO 8-7382  
Open daily 9:30 a.m.-8:00 p.m.

## MASSACHUSETTS

### BELMONT BOAT COMPANY

402-404 Trapelo Road IV 4-5246  
Belmont, Massachusetts  
Diver Jim's Scuba Air Station \$1.00

### NEW ENGLAND DIVERS, INC.

42 Water Street WA 2-6951  
Beverly, Massachusetts  
Wholesale distributors for all major lines \$1.00

### JAMES BLISS & CO., INC.

342 Atlantic Avenue  
Boston 10, Massachusetts  
"Sales and Service" \$1.50

### B & R SKIN DIVING SUPPLIES

OX 8-2083  
29 Mechanic Street  
East Milton 86, Massachusetts

### HIGHLAND TELEVISION CO.

70 Main St., Melrose. Complete Eqpt.  
Hours: 9-6 Mon., Tues., Sat.; 9-9 Thurs., Fri.  
Closed Wed., Sun. 5 Min. Fill \$1.00

### SO-SHO-NE, INC.

246 Bridge St., Rt. 3A, N. Weymouth, Mass.  
Skin Diving Outfitters & Repair Station ED 7-3186  
YMCA and NEC Certified Instruction Fill \$1.00

## COLONIAL MARINE, INC.

Route #1, Norwood, Mass. NO 7-1100  
[At Airport Entrance] \$1.50  
Complete Line Skin Diving Equipment & Repairs

### LEONARDO & SON SKIN DIVERS SUPPLY

81 South Circuit Ave.  
Oak Bluffs, Massachusetts  
[On the Island of Martha's Vineyard]

### SOUTH SHORE SKIN DIVER

591 Washington Street PR 3-5452  
Quincy Point, Massachusetts  
Complete Sales—Repairs \$1.00

### ANDY'S AQUA SHOP

211 Bridge Street, Salem, Mass.  
Rentals, Sales, Instruction, Repairs PI 4-8813  
Charter Boat Diving Parties Fill \$1.00

### SKIN DIVING SUPPLY CO.

Route 6 and Main, Wareham, Mass. CY 5-0285  
Sales, Rentals, Repairs, Instruction  
Wholesale Distributors

### SEACRAFT INDUSTRIES, INC.

3A Church St., Wilmington OL 8-3393  
Retail Sales & Service  
Wholesale Distributors for all Major Lines \$1.00

### DIVERS WORLD, INC.

751 Main St., Rt. 38, Winchester, Mass.  
Certified YMCA Instruction PA 9-6653  
"We Have Everything" Fill \$1.00

## MICHIGAN

### DAVE'S SCUBA SHOP

3162 Packard, Ann Arbor, Mich. NO 3-0791  
Rentals, \$3 per day Mon.-Fri.  
7-9 Daily, including Sunday

### VILLAGE SPORT & HOBBY SHOP, INC.

154 S. Woodward Ave., Birmingham, Mich.  
Sales—Rentals—Hydro Tests MI 4-3010  
9-6 Mon.-Sat.; 9-9 Fri. \$1.50

### THE AQUA SHOP

Wil-O-Paw Drive, Coloma, Michigan  
Refills—Sales—Rentals—24 hrs. HO 8-4078  
Everything for the Diver who does \$1.50

### SEAWAY DIVING & EQPT. CO.

5725 S. Telegraph Rd.  
Dea born 9, Mich. Tested Air \$1.50  
CR 8-6750

### NEPTUNE SPORTS STORE

4222 Woodward Ave. TE 1-3800  
Detroit, Michigan \$1.00

### MICHIGAN SCHOOL OF DIVING

559 East Woodland LI 3-4536  
Ferndale, Michigan  
Air Any Time

### BILL & PAUL'S SPORHTHAUS

Complete Diving Shop GL 8-0639  
1528 Lake Drive, S.E. Full air fill \$1.50  
Grand Rapids, Mich. Open MWF 'til 9 p.m.

### GRAND RAPIDS DIVERS SUPPLY CO.

502 Carrier, N.E. RI 2-2689  
Grand Rapids 5, Michigan \$1.50

### DIVER'S SUPPLY U.S.A.

525 Trimble Ave., Kalamazoo, Mich.  
Sales, Rentals, Mail Order Catalogs FI 3-1913  
24 hr. Service 5 fills \$6

### MILLER & BOERMAN

330 W. Michigan Ave., Kalamazoo, Mich.  
8:30-5:30; open Wed. nites; closed Thurs. p.m.  
Complete skin diving supplies-rentals \$1.50

### AQUATIC & DIVING EQUIPMENT CO.

2869 Pontiac Trail  
Walled Lake, Michigan  
9 to 9 MA 4-1417 \$1.25

### J. M. SPORTING GOODS

Everything for the Skin Diver  
1079 Fort St., AV 4-3212  
Wyandotte, Mich. \$1.50

## MINNESOTA

### BRainerd SKIN DIVING SUPPLY CO.

1302 9th Ave., N.E., Brainerd, Minn.  
Summer 9-6, Sun. 10:30-1 Phone 829-5953  
Winter (Call ahead) 4-9 p.m. \$1.50

### TRAVIS DIVING COMPANY

16809 North Scenic Lane  
Hopkins, Minnesota  
All hours; phone WEst 8-4821 \$1.50

### DONALDSON'S

601 Nicollet Avenue  
Minneapolis 2, Minnesota  
Regular store hours \$1.50



(Continued from Page 55)

**JACK THE FROGMAN CO.**  
4251 Nicollett Ave., South Minneapolis 9, Minnesota  
Air filtered five times 24 hr. service \$1.50

**PAULSON DIVERS SUPPLY**  
2935 Newton Ave. N., Minneapolis 11, Minn.  
Rentals, Sales, Instruction, Repairs JA 1-8684  
Hours: 10 a.m. to 9 p.m. Daily

**SWIM WITH JIM & CO.**  
5027 N. Mississippi Cr., Minneapolis 12, Minn.  
Sales, Rentals, Instruction, Refills JA 1-4949  
(Fixed & Mobile Store.) All hours

**MIDWEST SKIN DIVING SUPPLY COMPANY**  
405 South Wabasha Street (at Concord)  
St. Paul, Minnesota CA 4-7155 after hours call CA 5-0645 \$1.50

**ST. CLOUD SKIN DIVER CO.**  
1703 3rd St. No.  
St. Cloud BL 2-1604 \$1.50  
Hours: 8 a.m.-9 p.m., Sun. 9-12 noon.

## MISSOURI

**MIDWEST DIVING SUPPLY COMPANY**  
Wholesale & Retail  
2218 South Broadway, St. Louis 4, Mo. PR 6-2059  
Open 7 days a week \$1.50

## NEVADA

**WHAMCO DIVERS UD-10**  
2009 Linden Ave., Las Vegas, Nevada  
Air Available 24 Hours  
Hours: 9-6 \$1.50

## NEW HAMPSHIRE

**HAMPTON BEACH DIVERS SHOP**  
2 Bailey Avenue  
Hampton Beach, New Hampshire  
Rentals—Supplies—Refills \$1.25

**LAKES REGION DIVERS SUPPLY HDQS.**  
Weirs Blvd., Laconia, New Hampshire EN 6-4970  
Immediate Refills/Sales/Service/Rentals \$1.50  
Instruction. 7 days a week year round

## NEW JERSEY

**BOB KISLIN'S SPORTING GOODS**  
Everything for the skin diver at lowest prices  
701 Main St. Prospect 4-0900  
Asbury Park, New Jersey Refill \$1.50

**ROSEFF'S, INC.**  
3rd and Bay Avenues, Beach Haven, N. J.  
8 a.m. to 9 p.m. (June, July, Aug.);  
9-6 (other months) \$1.50

**GUY'S SPORT SHOP**  
A complete line for skin divers—rentals  
705 Ninth Ave. MU 1-0089  
Belmar, N. J.

**ATLANTIC DIVERS**  
Randall and Broadway  
Ken's Landing  
Point Pleasant Beach, New Jersey

**DOVER SPORT CENTER**  
Route 46, Dover, New Jersey FO 6-3133  
Six Minute Service Fill \$ 95  
8 a.m. to 9 p.m.

**THE BOTTOM SHOP, INC.**  
State Highway 35, Keyport, N. J.  
9 a.m. to 9 p.m. Lowell 6-0606  
Sales, Service, Repairs, Rentals

**GARDEN STATE SWIMMING POOL & SUPPLY**  
324 Main St., Madison Frontier 7-4400  
Rentals & Supplies 10 fills \$12.00  
Hours: 8-9 M-F, Sat. 9-6 July Single \$1.50

**DIVERS LOCKER**  
321 Smith St. VA 6-3875  
Perth Amboy, N. J. 12 fills \$10.00  
Hours 9-9 daily Single fill \$1.00

**4 DIVERS, INC.**  
56 Broadway  
Point Pleasant Beach, New Jersey  
Sales—Service—Rentals & Air

**RAMAPO GULF SERVICENTER**  
289 Wanauke Ave., Pompton Lakes, N. J.  
Pure Filtered Air; Refills While You Wait TE 5-9817  
Hours: 7 a.m.-9 p.m.; Sun. 'til 3 p.m.

**UNDERWATER SPORTS OF N.J.**  
A complete line for skin divers  
Hours 10-10  
Route 17, Rochelle Park, N.J.

**ROCKAWAY SALES CO.**  
Route 46, Rockaway, New Jersey  
"Air Tested 99.9995 Pure"  
10 a.m. to 10 p.m. \$1.25

**BOWCRAFT SPORT SHOP**  
Route 22, Scotch Plains, N.J.  
Hours: 9-9  
Twelve refills \$15, single refill \$1.50

**DIVE RITE**  
1140 Ocean Ave., Sea Bright, N. J. SE 2-2370  
Skin diving equipment and supplies  
Air Station. Open 7 days

**SKIN DIVERS SUPPLY AND SALVAGE CO.**  
2439 Morris Ave., Union, New Jersey MU 7-2777  
Complete sales, service, rentals and instructions  
Mon.-Sat. 10-10; Sun. 10-2

## NEW YORK

**JOHNNY K'S HOBBY CENTER**  
25-22 Steinway St., Astoria, L.I. AS 4-3610  
A complete line for Skin Divers  
Open 7 days Immediate refills \$1.00

**BABYLON SPORTS CENTER**  
50 East Main Street, Babylon, New York  
Everything for the Skin Diver MO 9-2323  
Free Lessons—Repairs \$1.00

**MID-ISLAND FIRE EQUIPMENT SERVICE**  
11 South Grand Avenue  
Baldwin, New York BA 3-8246  
A complete line for skin divers

**COUGAR SPORTS, INC.**  
3470 Webster Ave., near Gunhill Rd. TU 1-3558  
Bronx 67, New York Repairs, Rentals, Lessons  
Hours: Mon.-Fri. 1-10 p.m.; Sat. 9 a.m.-10 p.m.

**INDEPENDENT WELDING SUPPLY CORP.**  
268 East 142nd St., Bronx 51, New York  
Minutes from Tri-Boro Bridge  
Scuba Filled While You Wait \$1.00

**AQUA-LAND**  
244 Brighton Beach Ave. DEwey 2-1040  
Brooklyn, N.Y.  
Sales-Rentals-Repairs-Refills

**CENTRAL SKIN DIVING—BROOKLYN & QUEENS**  
1007 Ulica Ave., Brooklyn, N.Y., DI 5-1070 \$5.00  
160-09 Jamaica Ave., Jamaica, N. Y. RE 9-5772  
1 Free Lesson—Heated Indoor Pool—Try 5 4 U Buy

**HARVEY'S SPORTING GOODS, INC.**  
2003 Emmons Ave. 10 refills for \$5.00  
Brooklyn 35, N.Y. Sheephead 3-0054  
Open 7 days a week—Immediate refills

**THE SENECA BUOY, INC.**  
931 Seneca Ave., just off Myrtle Ave.  
Brooklyn 27, New York EMpire 5-3435  
Sales, Rentals, Service 6 fills \$5.00

**COLLEGE MARINE & DIVING CENTER, INC.**  
18-51 122nd St., College Pt. 56, N. Y.  
FL 9-9123—Refills while you wait  
Diving Equipment Sales-Service-Repairs

**B & B SPORTING GOODS CO., INC.**  
162-02 Northern Blvd. IN 1-5461  
Flushing 58, N.Y. \$1.00  
Mon.-Thurs. 8 p.m., Fri. 9 p.m.; Sat. 7 p.m.

**SPORT WORLD**  
138-10 Northern Blvd., Flushing, N. Y. FL 3-1803  
"North Shore's largest Skin Diving Center."  
Refill while you wait \$1.00

**DANZIGER**  
70 So. Main St.  
Freeport, L. I., N. Y. FR 8-4480  
Equipment sales and refills

**HEMPSTEAD OUTDOOR STORE**  
5 North Franklin Street  
Hempstead, L.I., N.Y. Filled while you wait  
IV 6-9851 10 fills for \$10.00

**BRAD'S AQUA SPORTS CENTER**  
Route 9, Lake George, N. Y. NN 8-2638  
Professional Diving Center C-B 2A5319  
Air—Sales—Rentals—Instructions

**DAVY JONES' LOCKER**  
Mayard Cir., Lake George, N. Y. NN 8-2052  
Finest Diving in the East  
Area's Largest Skin Diving Center

**ROBINHOOD SURPLUS CENTER, INC.**  
2132 Sunrise Highway FR 8-4206  
Merrick, New York—Filled While You Wait  
Certified Pure Air—Open Every Evening

**MAC SHYDER'S ARMY & NAVY STORE**  
136 Surf Ave., Port Jefferson, L. I., N. Y.  
Rentals—Instruction PO 8-1592  
Open Sunday June thru Sept.

**BOB & LEE'S HOBBY & SKIN DIVING CENTER**  
111-05 Lefferts Blvd., Richmond Hill 20, N. Y.  
Everything for the diver, sales, service,  
rentals phone Virginia 8-4321

**NAUM BROTHERS SPORTING GOODS**  
Marine—Skin Diving—Authorized Repairs  
2373 Ridge Rd., W. Rochester  
Hours: Daily 8-9, Sat. 8-6 \$1.50

## NORTH CAROLINA

**NATIONAL WELDERS SUPPLY CO.**  
Tanks Filled; Aqua-Lung Supplies  
Charlotte—Asheville—Salisbury—  
Fayetteville, North Carolina

## OHIO

**OHIO SKIN DIVERS HDQTS., INC.**  
Sportsman Lake, Cedarville SO 6-3041  
7041 Vine at Seymour, Cincinnati 16 VA 1-2514  
Refills, Sales, Instruction \$1.50

**ACE AIR COMPRESSOR CO.**  
1647 Eddy Road Shop GL 1-3011  
Cleveland, Ohio Nights RE 1-6014  
Refills—Sales—Instructions

**THE NEWMAN STERN CO.**  
5365 Warrensville Center—Southgate, Cleveland  
29730 Lakeshore Blvd.—Shoregate, Cleveland  
Your complete diving headquarters

## OKLAHOMA

**PURDY'S SPORT SHOP**  
123 North Muskogee Avenue  
Tahlequah, Oklahoma GL 6-3341  
Hours: 7-6; Sat. 'til 9 \$1.50

## OREGON

**EUGENE SKIN DIVERS SUPPLY**  
Air Station—Rentals—Instruction DI 5-1524  
Only Specialty Dive Shop in Central Oregon  
6th and Blair, Eugene, Oregon \$1.25

**AMERMAN'S DIVERS SUPPLY**  
7312 S.E. 82nd St.  
Portland 6, Oregon  
Everything for the Skin Diver \$1.00

## PENNSYLVANIA

**ADVANCED AQUA DIVERS**  
Division of Advanced Fire Eqt. Co. Inc.  
Rr. 30 West, Greensburg, Pa.  
Phone Temple 4-6550

**POLLY BROS.**  
7th & Market Sts.  
Philadelphia 6, Pa.  
Telephone Walnut 2-6565 \$1.50

**WIEST'S SPORTING GOODS**  
450 Penn Avenue  
West Reading, Penna. FR 5-5250  
A complete line for skin divers \$1.50

## SOUTH CAROLINA

**NATIONAL WELDERS SUPPLY CO.**  
Tanks Filled; Aqua-Lung Supplies  
Charleston—Florence—Columbia—  
Greenville, South Carolina

## TENNESSEE

**MID-SOUTH MEDICAL GASES, INC.**  
651 Jefferson Ave., Memphis, Tenn.  
8-5; Sat. 'til Noon  
Voit Distributor 5 minute refills \$1.50

## TEXAS

**AQUALAND**  
1626 N. Industrial Blvd.  
Dallas 7, Texas RI 8-2812  
Refills, sales, rental, instructions

**DALLAS-MAYER COMPANY**  
2719 Live Oak Street TA 3-5046  
Dallas 4, Texas TA 7-6361  
Sales, Service, Rental, Air

**NATIONAL WELDING SUPPLY COMPANY**  
Downtown, 5 blks. W. of Courthouse  
615 W. Belknap, Fort Worth ED 6-7145  
Year-round Refills, Sales, Service

## VIRGINIA

### MARITIME EXPLORATIONS

"Virginia's FIRST Underwater Sports & Skin Diving Center"—Sales, Rentals, Service, Instructions  
1901 Atlantic Ave., Virginia Beach, Va. \$1.50

## WASHINGTON

### DIVERS HUT

5120 Kitsap Way, Bremerton, Wash. ES 7-6991  
(on Silverdale Highway)  
Open 7 days Air \$1.25

### PUGET SOUND DIVERS, INC.

2520 Westlake No. Seattle 9 AT 3-8555  
Sales & Rentals  
Hours: 8:30-5:30 Emergency; PR 6-4428 \$1.25

### SPORTS CREEL, INC.

12312 E. Sprague WA 4-2330  
Opportunity (Suburban Spokane) \$1.25  
Hours 9-6, Fri. till 9, Sun. 8-9 a.m.

## WISCONSIN

### BROOKFIELD SKIN DIVING SUPPLY, SCHOOL

310 No. Moorland Rd. (City O), Brookfield, Wis.  
Hours: Mon.-Sat. 9-9; Sun. 12-5  
Instruction—Equipment—Rentals Air \$2.00

### FREDERIC DIVING SHOP

Frederic, Wisconsin 327-8306  
Complete Line of Diving Equipment  
Instructions, Rentals, Compressed Air \$1.75

### SKIN DIVERS SALES & SERVICE

929 S. Park St., Madison AL 6-0451  
Hours: 7 a.m.-8 p.m. 7 days a week  
Air, Rentals, Instruction, Repairs \$2.00

### SPORT DIVER CORP.

3810 W. Lisbon Ave., Milwaukee 8, Wis.  
Hours: Mon., Wed., Fri. 9-9  
Tues., Thurs., Sat., 9-6 \$1.95

### RACINE AQUA-LAND

Hwy 38 and county MM, Racine, Wisconsin  
Midwest's Best Skin Diving ME 4-9587  
Crystal Clear Water—Insured Pure Air

## BARBADOS WEST INDIES

### ANTILLES WATERSPORTS LIMITED

P. O. Box 40—Two Locations  
Rentals—Instructions—Sales Air \$6.00  
Widest Stock in West Indies

## CANADA

### LLOYD SHALES HOBBY SUPPLIES

208 Division St. LI 8-4277  
Kingston, Ontario  
Equipment Sales—Instruction—Demonstration

### WESTON AQUATICS & SPORTS

1758 Weston Road CH 1-9139  
Weston, Ont.  
Equipment and Rentals

### ISLAND DIVERS, LTD.

315A Wesley St., Nanaimo, B. C. 10 air  
Phone: SK 4-8561; eves. SK 4-8517 tickets  
Equipment—Rentals—Instruction \$10.00  
Single \$1.25

### DATE DIVING EQUIPMENT LIMITED

Canada's Best-Known Specialist-Distributors  
Established 1853. Sports, Commercial, Naval  
Office & Showroom, 383-5 Concord, Montreal

## MEXICO

### DIVERS OF MEXICO, S.A.

Costera Miguel Aleman 98-4  
Acapulco, Gro., Mexico  
Instructions, Sales, Rentals, Repairs & Air \$1.50

### DEPORTES MARITIMOS

Dick Adcock  
Hotel Perla, La Paz, B. C., Mexico  
Boats, Tanks, Refills, Rentals

## PUERTO RICO

### LOS TRES CABALLEROS DEL MAR

Box 491, Puerto Real  
On Bahía de Yegua, Las Croabas  
Instr.-Charter-Air-Sales-Service

### THE ORIGINAL DON'S AQUATIC CENTER

Sales-Repairs-Rentals-Tanks Filled  
Box 10481 Caparra Heights Tel. 8-0072  
Military Highway, No. 2 Entrance Puerto Nuevo

SKIN DIVER—November 1961

## THE HARD WAY

Continued from Page 25

backed up by Russell Hall who tends the dredge and Joe's signal and hookah lines. Russ wears a suit also and the men operate as a skilled team to wrestle the big dredge in the swift water. Oliver Baysinger works the beach rigging and doubles as chef, putting out meals that would do credit to a resort hotel, with wild game and fish dominant on the menu. Virginia Adams, Joe's wife, is the gold separation expert, accountant, alter-ego and all around spark plug. Her enthusiasm and drive are a real asset to the team and she works alongside the others hour for hour. Mealtime finds Virginia cast as the good looking waitress, dealing 'em off the arms and laughing it up with the crew and the inevitable curious visitors.

Life for Joe has always been a gamble, but of a different kind. As a contractor in the far north he progressed far and was committed to the game until a combination of human nature and circumstances changed the picture quickly and completely. One day he found himself out of business and facing the consequences.

Considering ways to recover his standard of living, Joe reasoned that the creeks were still heavy with residual gold, and a diver could get it. Ordering gear on his own judgment out of catalogues, he proceeded to break into the game without the benefit of instruction or advice, in the same fast water he now dredges.

Conditions were different however. It was winter, with the temperature below zero, and the whole country was frozen except the fastest streams.

Joe worked as he learned, starting from scratch and producing the year

(Continued on Next Page)

## THEY'VE GOT TO BE THE BEST!

world famous

## Gold Suckers®

patented by the U. S. Patent Office

- ✓ featuring 173 authorized dealers
- ✓ specialists and pioneer developers in the new process of underwater sluicing of gold and other precious minerals
- ✓ our engineering services are available on special applications of custom dredges
- ✓ completely manufactured in our own plants
- ✓ we use all standard brand component parts
- ✓ our own design and aluminum pumps on all commercial and professional machines

### You can't afford to consider anything but the best!!

By popular demand, acclaimed the most popular gold dredge. There are more Keene Gold Suckers sold than all other competitive underwater gold dredges combined. 8 stock models to choose from. All featuring our new Patented Sluice Trays with patents pending that will beat a surface sluice box on all types of gold.

#### The Prospector—Model 300

3 inch diameter sucker, with complete machinery for digging gold the easy way in shallow water. Complete .....\$179.50

#### The Commercial Super 4 Inch—Model 4200

4 inch diameter Sucker with hydraulic attachment for cleaning crevices, Motor, Pump and Base. All aluminum, the lightest ever. ....\$265.00

#### Hookah Compressors

Air compressor Kits for the above.....\$80.00  
Johnson Air compressor, short Kits.....\$50.00

#### Model 6052

#### Professional 6 Inch One Man Dredge

6 inch diameter Sucker complete with Briggs & Stratton 4 cycle aluminum motor, standard 1½ inch aluminum pump, aluminum compressor and aluminum base. This is perfection, and made possible at this price only by production methods. This 5¼ H.P. Motor with this Standard Brand Aluminum Pump with the high pressure impeller delivers more Jet Thrust than Other Models up to 9 H.P. ....\$479.50

#### Lightweight Portable Dredges

Sold in most leading dive shops. Over 173 authorized dealers. Write Keene Engineering Co. for additional information.



WRITE FOR OUR NEW CATALOG

## ENGINEERING CO.

11483 Van Owen North Hollywood, Calif.

**QUALITY**

**1 1/4 INCH WET SUIT KIT**

**\$28.00**

---

DBL. SKIN, 400% STRETCH NEOPRENE, COMP. W/INSTRUCTIONS, GLUE, CUT OUT, SEWN IN ZIPPER, SNAPS INSTALLED, READY TO GLUE. HOOD, JACKET, PANTS AND BOOTS.

**3/16" KIT ..... \$27.00**

Add \$10.00 for Completely Built Suits

Send measurements: neck, chest, waist, biceps, wrist, underarm to wrist, hips, thigh, ankle, shoulder to waist, waist to crotch, crotch to ankle. Height, weight, hat size, shoe size. Check or money order with order [in Canada add \$3.00 for handling and postage].

**DIVERS LOCKER**

P. O. Box 143-5 Gig Harbor, Wash.



YOU CAN BUY A QUALITY 1/4" WET SUIT FOR THE PRICE OF A KIT!

## 1/4" WET SUITS

COMPLETELY ASSEMBLED WITH  
HOOD, JACKET, TROUSERS AND  
BOOTS... PREPAID TO  
YOUR DOOR...

Only **34<sup>95</sup>**

3/16" WET SUITS... \$32.95  
1/4" WET SUIT KITS... 29.50  
3/16" WET SUIT KITS... 26.50

Satisfaction Guaranteed  
or Your Money Back!  
Enclose 10c for  
complete diving catalog

### CHECK THESE QUALITY FEATURES!

- First quality 400% stretch Neoprene, skin 2 sides.
- 6 years' suit manufacturing experience.
- Talon zippers and non-corrosive reinforced snaps.
- Yellow safety stripe in hood, specify if desired.
- Extra high trousers. • Double stitched zippers.
- Add \$3.00 for custom fit (send for chart).
- Women's trousers have zipper at waist.
- Black and yellow jackets only \$2.50 additional.

SEND MEASUREMENTS: Neck, chest, waist, bicep, wrist,  
hips, thigh, ankle, underarm to wrist, crotch to ankle.  
Include weight, height, shoe size, hat size.

### DEALER INQUIRIES INVITED

Send Cash, Check or Money Order  
(Washington Residents Add 4% Sales Tax) to:

# AQUA EXPLORATIONS

P. O. Box 3181

International Station

Seattle 14, Washington



### WEIGHT MOLDS

2-piece aluminum molds  
make 2 lb., 3 lb., 4 lb.,  
and 5 lb. weights in popu-  
lar form-fitting design.  
\$10.00 each (specify size  
desired). Send check or  
money order to:

**EBBTIDE ENTERPRISES**  
306 N. MORRIS WEST COVINA, CALIF.

When you're ready  
for the best

### CHOOSE SEAHAWK

Send 50c for catalog &  
underwater colorslide

**Seahawk Products**

P. O. Box 1157 Coral Gables 34, Florida



GOLD DIVING  
SIMPLIFIED...

WITH THE NEW

## MARTIN GOLD RUSH DREDGER



THIS AMAZING NEW JET VENTURI DREDGER IS LIGHT WEIGHT AND PORTABLE. THE NEW MARTIN GOLD RUSH DREDGER WILL PUMP OVER 100 GALLONS PER MINUTE AND RECOVER 90% TO 95% OF THE GOLD. SPECIAL DIVING AND UNDERWATER MINING COURSE TO OUR CUSTOMERS DEMONSTRATES THE HIGH PERFORMANCE AND LOW COST OF THE MARTIN GOLD RUSH DREDGER.

We also sell Do-It-Yourself Dredger  
Kits, Gas Engines, Pumps, Compressors,  
Hose, etc.

MAPS • DIVING EQUIPMENT • PANS

For further information, write:

*The* **MARTIN COMPANY**

3700 E. 12th St.  
Kellogg 3-5266

Oakland,  
California

FOR THAT

## GOLD SAFARI

SEE MEL

✓ JET-PROPELLED GOLD  
DIVING BOAT WITH  
DREDGE

✓ GOLD DIVING SCHOOL

ONE GOOD STRIKE AND  
YOU'VE PAID FOR YOUR EQUIPMENT

**MEL'S AQUA SHOP**

1911 South Catalina Ave. FR 5-2522  
Redondo Beach, California

## THE HARD WAY

(Continued from Last Page)

around, and he probably knows more at this time about swift water diving than any other individual in this part of the country. Contrary to some, his attitude is open and friendly, and his ability impresses others far more than himself. Without hesitation he will offer facts and tricks of the trade for the benefit of others that most divers would guard as trade secrets. This open minded attitude toward fellow enthusiasts is shared by all the members of the group and is the source of much valuable data for other divers with similar problems and less experience. Joe says, among other things, that the idea of gold not settling in fast water is wrong. He has proved that there is more gold right out in the middle of the torrent than there is in the quiet holes.

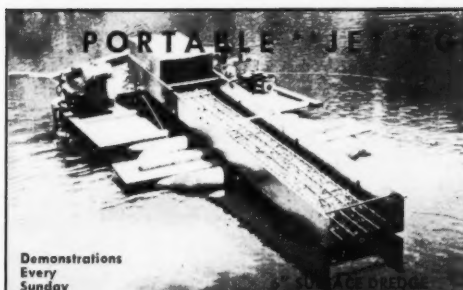
The factors that make for a successful operation in this field of adventure are all obvious in this mining team. The cooperation and flexibility of viewpoint among the individual members keeps the job running smoothly. Little is said about the borderline risks being taken, but the care and attention shown and the quick reaction to orders and changes give the key to the situation. Nobody is kidding himself. It could all end in disaster in a matter of seconds and every one of them knows it. But the nerve and drive with which they approach the task overcomes problems that would stop many people of a different nature.

On the day the eight inch dredge arrived, it was finally assembled at eleven o'clock p.m. Joe promptly decided to "try her out" and proceeded to don his cold and clammy suit, drag the gear down the cliff and flop into the river to go to work. It's been like that, with time out for exhaustion for

months, with the nuggets and flakes piling up steadily.

The team has learned a lot about processing the sand and gravel after it leaves the dredge riffles. Their recovery percentage is ninety. Joe can go over the same ground that the huge Klondike gold dredges have passed over, and make good returns with the methods he and his team have worked out and perfected. From watching his process it appears obvious that many divers spill the gold back out again from inexperienced handling of the dredge and insufficient re-working of the gold bearing sand after the initial recovery. In his experience he has sorted out the equipment too, and has some definite ideas about pumps, compressors, and diving gear. Consistent application of this knowledge has assured Joe and his team of a fair certainty of gold in the riffles.

The smiles in evidence around the riffle box are hard earned and well deserved by this outfit of gold mining divers, and Joe Adams and crew, who trained themselves and built their own rigging for the toughest and fastest water in the country, are showing 'em the short way around when it comes to gold diving in Alaska.



Demonstrations Every Sunday

Write for FREE LITERATURE describing our COMPLETE LINE OF GOLD DREDGES AND SKIN DIVING SUPPLIES

## THE NUGGET FARM

RT. 2, BOX 544, PLACERVILLE, CALIFORNIA  
5 mi. West of Placerville on U.S. Hiway 50 at SE Rancho turnoff.  
National 2-4626  
Open Every Day Except Saturday

POWERMITE EQUIPMENT is designed to bring the materials to the surface with suction units for working underwater. This requires good strong durable equipment which POWERMITE offers you in these Combination Units. New Jet Designs are now available. POWERMITE has been in the manufacture of portable mining equipment for many years and are manufacturers of portable dredges, drills, augers, hammers, dry washers, etc.

Send for information to:

**POWERMITE** Drill & Tool Company  
P. O. BOX 1121, ONTARIO, CALIFORNIA



HEAVY DUTY COMBINATION DREDGE WITH 6" UNDERWATER RECOVERER

## KLONDIKE KING

### COMBINATION GOLD DREDGE and GOLD BOAT

GET TO THOSE "SPOTS" WHERE OTHERS CAN'T!  
DON'T BE A PACK MULE—SAVE YOUR ENERGY  
TO MAKE MONEY!



Klondike King in Operation

- JET PROPELLED  
NO PROP DAMAGE
- PRACTICALLY UNSINKABLE  
FLOTATION BUILT IN
- FIBERGLASS CONSTRUCTION  
STURDY—NO MAINTENANCE
- WEIGHS ONLY 170 LBS.  
BOTH SUCKER AND BOAT

DEALER INQUIRIES INVITED



SEND \$2.00 FOR BEAUTIFUL FULL-COLOR PICTURE AND COMPLETE CATALOG GIVING FULL SPECIFICATIONS. \$1.00 refund on purchase of \$100.00 or more.

**NOR-CAL** P. O. BOX 1928, STOCKTON, CALIF.

HO 6-8051

READY TO WORK —  
JUST HOOK UP YOUR 2½" HOSE WITH OUR SUPPLIED QUICK COUPLERS AND OUR EFFICIENT 7" SUCKER GOES TO WORK FOR YOU.

COMPLETE UNIT  
KLONDIKE KING DREDGE/BOAT

Regular Price \$1095.00

FACTORY INTRODUCTORY  
PRICE \$895<sup>00</sup>



## ALGINIER INDUSTRIES

*greatest name in plastic housings*



COMPARE OUR PRICES WITH OUR COMPETITORS (WHILE WE STILL HAVE COMPETITORS!)

**ALL CAMERAS NEW: ALL HOUSINGS GUARANTEED**

<b>Bell &amp; Howell</b>	PERPETUA (Electric eye turret, F1.8) .....	COMPLETE W/ HOUSING	\$150.00
	SUNOMETER 319 (F1.9 lens) .....	COMPLETE W/ HOUSING	\$ 80.00
	333 (F1.9 wide angle lens, turret) .....	COMPLETE W/ HOUSING	\$ 95.00
<b>Kodak</b>	CINE F1.9 Scopometer Turret .....	COMPLETE W/ HOUSING	\$135.00
	CINE F1.9 Auto Turret .....	COMPLETE W/ HOUSING	\$150.00
	BROWNIE F1.9 Turret .....	COMPLETE W/ HOUSING	\$ 89.00

Also DeJUR, MANSFIELD, WOLLENSAK, ARGUS  
ALL HOUSINGS 5/16" CLEAR PLASTIC, FULL CONTROL and FULLY GUARANTEED



**Water Bug Series**

SPORT 35mm CAMERA (F1.8 lens) .....
 COMPLETE W/ HOUSING | \$ 59.50 || OLYMPIC 127 CAMERA (F1.8 lens) ..... | COMPLETE W/ HOUSING | \$ 42.50 |

**DEALERSHIPS OPEN ON WATER BUG SERIES**  
**CUSTOM WORK OUR SPECIALTY**  
**G. A. COGGIN, P. O. BOX 2272, BELL GARDENS, CALIF. TO 2-1033**



Ross R. Olney's

# BOOK REVIEW

## WOMEN ARE STILL WOMEN!!

### AND Seahorse Products PROVE IT



3/16" custom made ski suit for warm water diving and water skiing. Figure emphasizing front with custom fit throughout.

**\$26.95 complete**

3/16" custom made full wet suit made exactly to your measurements to fit skin tight for looks as well as warmth. Notice the fancy cut bust front...another flattering Seahorse first. Name or initials free.

**\$59.95 complete**

## Seahorse Products

Hillside 3-1339  
P. O. BOX 960 EUREKA, CALIF.

## AMERICAN SEASHELLS

By R. TUCKER ABBOTT

and

## CARIBBEAN SEASHELLS

By R. TUCKER ABBOTT

GERMAINE L. WARMKE

**B**OTH BOOKS are written for serious Amateur and professional conchologists. They are expensive... and they are complete. Each is considered the leading volume on mollusks for its own particular area.

American Seashells, for example, covers more than 1500 of the most important varieties of mollusks to be found in the shallow waters from Labrador to Florida and the Caribbean Islands, and from Alaska to lower California and Central America. For the first time, popular names of the shallow-water forms have been standardized along with answers to such questions as how mollusks breed, grow, form their color pattern, and how and what they eat. Many secrets of shell collecting, techniques of care and methods of study are revealed by a world renowned expert on the subject.

The growth of interest in shell collecting in recent years demanded that such a volume be published and this book, designed for every collector, hobbyist, conchologist and researcher in natural history, is the answer to that demand. Illustrations include line drawings, photographs and 24 magnificent new color plates.

The second book, Caribbean Seashells, serves as a much needed supplement to Dr. Abbott's first, and covers the West Indies and southeastern United States. Written in collaboration with Mrs. Ger-



# Velzy!

**THE SHAPES OF SPORTS EQUIPMENT TO COME!\***  
**THE SURFBOARD OF CHAMPIONS!...by VELZY!**  
**THE INCOMPARABLE DESIGNER OF WATER SPORTS EQUIPMENT! ORIGINATOR OF ALL VELZY SHAPES OR DESIGNS!**

Be sure you got... the shape with the most experience!  
World's Finest Tandem and Life-Saving Boards!  
Boards for Divers and Fishermen!  
Boards for speed and big waves!  
Boards for Lakes and Rivers!


18 Presidio Terrace, San Francisco  
**DEALERSHIPS! WRITE ABOVE!**

From 8' to 12'... From \$105 to \$175  
**IN ADDITION... NOW!... NEW!**

The SENSATIONAL 10-foot VELZY KYAK! With the incomparable Velzy Shape! Will do everything a surfboard will do! Royale Hull with polyurethane interior. **ABSOLUTELY UNSINKABLE!** \$195.

This superbly designed Kyak invaluable for hunting, diving, as life-guard equipment! The old, romantic Kyak, with the NEW SPACE-AGE, VELZY DESIGN! \* DEALER INQUIRIES INVITED!

See the largest quantity of shapes and designs anywhere at our showroom...  
104 McFadden Place • Newport Beach, California

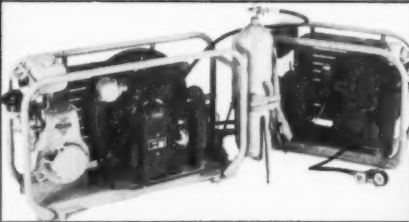


# MAKO

## AIR COMPRESSORS

**K-15 FILLS IN 6 MINUTES**  
**K-15-85 FILLS IN 9 MINUTES**  
**K-14 FILLS IN 15 MINUTES**  
**K-13 FILLS IN 28 MINUTES**

**70 CF TANK TO 2150 PSI**



**COMPARE**

Write for Free Literature

Only MAKO offers 750 rpm, heavy duty, portable air compressors designed for constant operation. 750 rpm's mean less heat, less noise, fewer repairs, greater efficiency, and a far greater return on your investment. Used by the USN and NATO. Available from 2 to 12 cfm and to 6000 psi. Gas, electric and diesel powered.

## UNDERWATER SPORTS

2219 Biscayne Boulevard, Miami 37, Florida  
APPROVED LUNG REPAIR DEPOT  
Franklin 3-6474

**SKIN DIVER—November 1961**



maine LeClerc Warmke, Curator of Mollusks at the Institute of Marine Biology in Mayaguez, Puerto Rico, the book covers much the same facts and information only in a more specialized area.

Listed in this book are travel hints, the best seasons to collect, the best places to collect, locally interesting shells and how best to clean and ship home specimens. A useful glossary and Caribbean bibliography are included. Over 800 species are accurately classified and described, with 44 plates of photographs, habitat notes and geographical ranges.

An interesting feature of the second book is a series of distribution maps giving the reader a graphic picture of what species are most likely to be found in any one area of the tropical Western Atlantic region.

Dr. R. Tucker Abbott has been active in the field of mollusks for over 20 years, receiving his training at Harvard and his Ph.D from George Washington University. He has made many field trips and expeditions including the Harvard-Archbold Expedition in 1939-40 aboard a Chinese junk to Malanesia and Polynesia. He is the author of many magazine articles and scientific papers for American and foreign publications and has served as a malacologist for the US Navy and with the National Research Council on an expedition to Africa to find a natural enemy of a costly agricultural pest, the Giant African Snail. Dr. Abbott, member of the American Malacological Society and the Society of Systematic Zoology, resides in Philadelphia.

Mrs. Warmke is a graduate of the University of Maine and later received her Masters degree in genetics from the University of Rochester. She came to Puerto Rico in 1946 and immediately engaged in the collecting and research work on which Caribbean Seashells is based. She developed special techniques for securing enlarged photographs of minute species, the success of which is obvious in the plates in the book.

Mrs. Warmke also assists her husband, Dr. Harry E. Warmke, who is Director of the Federal Experiment Station, US Department of Agriculture, in Mayaguez.

American Seashells was published by D. Van Nostrand Company, Inc. and is available through Skin Diver Magazine's Underwater Bookshelf for \$13.75. Caribbean Seashells was published by Livingston Publishing Company and is \$8.95.

California Divers . . .

#### DIVE SHOP FOR SALE

Stock, fixtures, compressors . . . the whole schmeer. Business is too good—present owner wants to spend more time in the water. Inquire Box HD,

SKIN DIVER MAGAZINE, P.O. Box 111,  
Lynwood, California

#### FOR THE ARMED FORCES

This is the opportunity you have been waiting for. SPECIAL prices on all diving equipment. Offer limited to personnel of the U. S. Armed Forces. Please enclose 25c in stamps with inquiry.

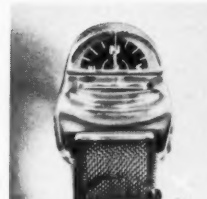
**PHILL'S**

2517 N. W. 10th Oklahoma City 7, Oklahoma

#### BUSINESS OPPORTUNITY

Tax Free Income—Need working investor with management ability to purchase half interest in going skin diving business. \$40,000 cash. Reply to Box 1161, SKIN DIVER MAZAZINE with resume. Further particulars will be forwarded to qualified party.

## TRITON COMPASS & SAFETY THERMOMETER



Pat. Pend.

TRITON COMPASS is read while in a swimming attitude without the need to look down. The dial is illuminated by optical magnification of the reflected light from the surface, and can be read in the most twilight conditions. The TRITON COMPASS has won first place in three known Navigational Tournaments, has been accepted as the Official National Tournament Compass by the Underwater Society Of America. Price \$5.95

TRITON SAFETY THERMOGAGE is not an ordinary thermometer. It is engineered to read temperature clearly, almost as quickly as a change occurs, and even before it is felt. The dial moves under the indicator allowing a larger accurate instrument to be confined in a compact assembly. Rapid temperature is indicated with an aluminum housing, and thermo conductive liquid. The TRITON THERMOGAGE attaches conveniently to the harness. A safe Water Temperature Exposure Chart is included. Price \$7.95

Pat. Pend.



Pat. Pend.

BLOCK BASE has an attractive appearance which compliments and displays your equipment, decorating any room. A tank can be dropped into a BLOCK BASE carelessly, and escaping air, foam rubber, and flexing sidewalls, will silently cushion the tank. When the tank is lifted out, the BLOCK BASE will not stick or scratch. Produced from strong, light weight plastic. Price \$3.79

BLOCK CHOCKS for safe carrying of tanks in a car. Designed to fit harness clamps to keep the tank from rolling or sliding out. Rubber cushions hold the tank firmly. BLOCK CHOCKS are ideal for boats and permanent storage racks. Strong, light weight plastic. Price \$3.79 pr.

Our products will be mailed postpaid to individuals—send check or C.O.D.

DISTRIBUTORS WANTED

Pat. Pend.

**Sea-Well CORPORATION** BOX 443 DES PLAINES, ILLINOIS  
(call TA 5-1085 Park Ridge, Illinois)

## SCUFI SLURP GUN

The simplest, most dependable fish catcher made. With only one moving part, it is virtually free of mechanical failure or jamming. Specimens are trapped in the new well feature built right in the barrel of the gun, eliminating need for collector to tote ditty bag.

REASONABLY PRICED AT **\$11.95**

Manufactured by:  
**CATALINA DIVERS SUPPLY**  
P. O. Box 126  
Avalon, California

Designed and tested over a three-year period on Catalina Island by Frank Rutherford.

Distributed by:  
**J. S. GUION SPORTING GOODS**  
P. O. Box C-2  
Avalon, California

**SKIN DIVER MAGAZINE**  
Lynwood, California

## Subscription Blank

1-yr. \$4 2-yr. \$7 3-yr. \$10—U. S. and Canada  
\$5 one year, All Other Countries

I enclose \$\_\_\_\_\_ for \_\_\_\_\_ years subscription.

☐ New

☐ Renew

HAVE YOU TRIED

**Rubba-Mark**  
THE Colorful COATING  
MARK ANYTHING THAT  
STRETCHES

DIVERS  
SURFERS  
SUITS  
JACKETS  
MASKS  
FINS  
Boots  
Floats  
Tires

6 BRIGHT  
COLORS  
RED  
BLUE  
GREEN  
WHITE  
YELLOW  
ORANGE

Don't Delay  
COSTS ONLY  
**50c**

HARBOR SPECIALTY CO.  
308 No. Harbor Blvd. Santa Ana, Calif.  
DEALERS INQUIRIES INVITED

**SPOT-MARK**  
MARKS UNDERWATER  
AND SURFACE  
LOCATION AT THE SAME TIME

Made for skin divers! Clips on belt or strap. To use underwater tie cord on any object; to use from surface merely drop SPOT-MARK in the water. Everything else is automatic. Unbreakable plastic float stays on the surface . . . lead weight on end of rot-proof nylon cord stays on bottom. YOU HAVE MARKED YOUR SPOT!! Two sizes. . 2"x 6" size only \$2.95 . . ask your dealer or order direct from

**STARK'S AQUATICS**—3004 Warrington Rd.  
Cleveland 20, Ohio  
Ohio Distributor—Skin Divers Supply, Akron

**UNDERWATER  
POLAROID CAMERA**

Take, develop and see pictures while 60 feet down. Uses high speed (ASA 3000), 10 sec. film.

Write: **RAYMOND DEVELOPMENT CO.**  
Box 333, Watertown 72, Mass.

**MAIL ORDER SPECIALISTS**

Diving equipment shipped at lowest prices. SPECIAL—3/16" WET SUIT including hood, boots, gloves. Factory assembled. \$32.95

WRITE FOR OUR FREE CATALOG  
**ALL AMERICAN SCUBA INC.**  
260 W. 29 St., New York 1, N. Y.

**BUY SWAP**  
DIVING GEAR—GENERAL MERCHANDISE

CASH FOR  
GOOD 2nd HAND  
EQUIPMENT  
TOP MARKET \$ PAID AT  
OUR STORE LOCALLY  
OR VIA MAIL ORDER  
ANYWHERE IN WORLD.

TRADE-IN YOUR  
PROPERTY ON OUR  
VARIED STOCK  
GET SWAP VALUE ON  
THINGS YOU DON'T  
NEED FOR ITEMS YOU  
WANT.

SEND FOR FREE LISTINGS OF BARGAINS.  
Includes "HOW TO SELL & SWAP WITH SHELL"  
YOU CAN GET EQUIPPED WITH LITTLE OR NO  
CASH AT SHELL'S—VISIT OR WRITE

**SHELL'S** 1452 (sales) 2nd Street  
1454 (buys)  
SANTA MONICA, CALIF., USA. PHONE: EX 3-9840  
Open 8:30-6, Fri. til 9 p.m.—Closed Sun. & Mon.

## NEWS CURRENT

(Continued from Page 48)

**HONOLULU, HAWAII**—The work of Dr. Eugenie Clark at Cape Haze Marine Laboratory in Florida was discussed at the recent Pacific Science Congress in Honolulu. Results of color tests and their subsequent reactions dispelled the long held belief that sharks were color blind and also lead many of the scientists at the congress to believe the information could lead to an effective means of repelling the scavenger of the sea.

**WATCH HILL REEF, RHODE ISLAND**—Divers have learned that the 275 foot freighter, *Onondaga*, which floundered in 1918, was well loaded with a cargo of tires, dinner dishes and *Pierce Arrow* limousines. Members of the *Connecticut Dolphins* explored the wreckage for weeks and recovered some of the cargo.

**OROVILLE, CALIFORNIA**—Deputy sheriff divers, *Raymond Swett* and *Robert Phippen* discovered a 25 pound aerial bomb in the *Feather River*. Recovery of the bomb proved it a dud practice type.

**LEE, MASSACHUSETTS**—Ten revolvers found on the bottom of a water filled lime quarry off *Marble Street* by divers are being checked by state police for identification. The divers making the discovery were *Richard Rische* and *Milton Musbach* of the *Berkshire Skin Diving Club*.

**MACKINAW CITY, MICHIGAN**—The wreckage of an ancient steamer in the *Straits of Mackinac* has been discovered by visiting Florida divers, *Jim Mercer*, *Art Viskine* and *Lud Millhauser*.

**SAN DIEGO, CALIFORNIA**—A thousand dollars worth of typewriters, electric tools and other equipment was discovered in ten feet of water off *La Jolla Cove* by divers *Douglas Sherman*, *B. A. Treahy*, *Lester Marks*, and *William Hilbist*. The equipment which filled the trunk of a squad car had not been in the ocean long and believed the loot of several recent burglaries.

**MURRELLS INLET, SOUTH CAROLINA**—South Carolina's new man-made fishing reef is attracting large numbers of salt water fish. *Mickey Spillane*, mystery writer, was photographed by *Life Magazine* staff members diving at the reef during the *Sun Fun Festival*.

**MONTAUK POINT, NEW YORK**—King John and his *Magna Carta* were brought into a court fight over the rights of divers to use the *Atlantic Ocean* off *Montauk Point*. Attorney-diver *Murray Seliger* who started a test case on the legality of restricting any group from using the *Atlantic Ocean*—particularly divers—maintained through his lawyer that *King John's Magna Carta*, handed down in 1215, guaranteed the right of every freeman to "fish, bathe, navigate and swim." "Our courts have repeatedly stated and restated this public right, all waterways according to ancient law were to be held for all of the people," the diver brought forth in court. *Seliger* claims the *East Hampton* ordinance barring divers from *Montauk Point* is discriminatory and unconstitutional because it changes the character of the *Atlantic Ocean* from public to private domain.

Complete  
Plans  
in Scale  
ADDICT GUN  
\$2.00 each

Send 25c for  
the most unusual  
diving catalog  
ever published  
to:

**UNDERWATER  
SPORTS SHOP**  
11 39th Place  
Long Beach  
Calif.

**EMBLEMS**

LOW MINIMUM!  
PRICES AS LOW AS 20c  
Send rough sketch indicating Quantity,  
Size and Colors. Or send for FREE PRICE  
LIST and BROCHURE, to:

**EASTERN EMBLEM SUPPLY CO.**  
P. O. Box 254, Dept. D10, Jamaica 31, New York

**IT FLOATS**

NEW UNDERWATER  
SKINDIVERS  
LIGHT \$9<sup>95</sup>  
(with shoulder strap  
\$1.50 extra)

Unbreakable, waterproof—  
won't rust or corrode.  
Double Barrel. 3-cell  
length. 80,000 candle-  
power! SEE A MILE!

FREE! Send for Special Divers' Catalog!  
**BEACHCOMBER PRODUCTS**  
P. O. BOX 1056  
MANCHESTER, N. H.

**SPECIAL!**  
**Skin Divers'**  
**TANKS**

"UNGALVANIZED"  
**\$34<sup>95</sup>** F.O.B.  
CLEVELAND

BRAND NEW — 68 CU. FT.  
COMPLETE WITH VALVE  
Filled or empty as required  
LIMITED QUANTITY

Dealer Inquiries Invited  
**BURDETT OXYGEN CO.**  
3300 Lakeside Ave. • Cleveland 13, O.  
Send check and save C.O.D. charges




**PRESCRIPTION DIVING LENSES**

Extra large precision ground, wide angle, prescription safety lenses securely bonded to your own face plate. Personally and individually custom made by an optician who is a diver. Custom shaped to fit any mask. Lenses can be changed if your prescription changes. \$20.00 to \$25.00 depending on prescription and type of mask.

Send your mask, lens prescription and distance between eyes, or send your mask and your eye-glasses which I will copy and return immediately by air mail. Or write for further information or to discuss any special underwater visual problem you may have. Problem cases invited. Satisfaction guaranteed or money refunded.

**LEONARD MAGGIORE**  
OPTICIAN FOR DIVERS  
340 Stanhope St. Brooklyn 37, N. Y.

**HYDRO-PROBE**  
A HAND HELD SONAR FOR DIVERS



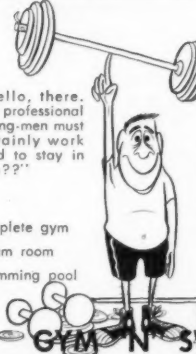
Spot Wrecks, Cars, Your Buddy, etc., even in zero visibility.

Write: **RAYMOND DEVELOPMENT CO.**  
BOX 333, WATERTOWN 72, MASS.

**FLY THE DIVERS FLAG!**

Float size 15" x 15".....	\$1.79
Large Float size 18" x 18".....	2.50
Boat size 36" x 36".....	4.00
Auto Antenna Size.....	.75

**JUNE SPORTSWEAR CO.**  
2277 W. 6th St., Brooklyn 23, N.Y.  
Tel. HI. 9-3619 or UL. 2-7434  
Store volume prices on application



"Hello, there. You professional strong-men must certainly work hard to stay in trim?"

"Oh, I'm not a real weight-lifter. I'm a skin diver. I go to GYM 'N' SWIM because it helps keep me in shape for diving."

complete gym  
steam room  
swimming pool

Manned by Larry Mills

**GYM 'N' SWIM**

4500 E. Firestone South Gate Phone: LO 7-9127 California

**A New Line of MARINE JEWELRY**

Excitingly different.

Ideal Christmas gifts for all the skin diver's family and friends.

Send for descriptive folder and price list.

Dealer Inquiries Invited



**THE SHELL DIVERS**  
125 East Tampa Avenue  
Venice-on-the-Gulf, Florida

ST. LOUIS, MISSOURI—A hyper-velocity impulse wind tunnel used to test McDonnell missiles and space craft at up to 27 times the speed of sound was hastily converted to a recompression chamber to treat divers, Creighton B. Calfee, Jr., and Thomas Hatcher. The divers were forced to make a rapid ascent from 180 feet while diving at Blue Springs, about 115 miles southwest of St. Louis. Hatcher stopped breathing on the way up and was given mouth-to-mouth resuscitation by Calfee on shore. Calfee got his friend to the nearest town, some 18 miles away, and told one of the townspeople that Hatcher had the bends and needed treatment. The highway patrol started the two divers toward St. Louis while other officers searched for a chamber. The wind tunnel was remembered and although it is designed to have a vacuum, engineers decided it could be converted to hold air in, as is required in a recompression chamber. An hour and 15 minutes later the conversion was finished. Sixteen minutes later the ambulance carrying the divers arrived. For nine hours Hatcher and Calfee remained inside the makeshift chamber accompanied by two physicians. Calfee was released to his home, but Hatcher was taken to a hospital for more treatment from serious lung congestion. Calfee was credited with doing a spectacular job in saving Hatcher's life and the engineers that converted the 50 foot long cone shaped steel cylinder from a wind tunnel to a recompression chamber are to be congratulated for their ingenuity and speed. Incidentally the emergency caused the plant's research department to lose a half day.

NEW YORK—The Loral Electronic Corporation has moved into the field of oceanography with the acquisition of patents, products, proprietary inventions and the services of Dimitri Rebikoff. The major item acquired in the transaction was Rebikoff's T-4 Pegasus, plus his fabulous array of underwater photographic and lighting equipment. Rebikoff will join Loral as manager of the new project.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, JULY 2, 1946 AND JUNE 11, 1960 (74 Stat. 208) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF SKIN DIVER MAGAZINE, published monthly at Lynwood, California for November 1961.

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Skin Diver Publications, Inc., P. O. Box 111, Lynwood, Calif. Editor, Jim Auxier, 8530 Byers St., Downey, California. Advertising, Chuck Blakeslee, 6320 Vermont St., Long Beach, Calif.

2. The owner is: Skin Diver Publications, Inc. P. O. Box 111, Lynwood, California Jim Auxier, 8530 Byers St., Downey, Calif. Chuck Blakeslee, 6320 Vermont St., Long Beach, Calif.

3. The known bondholders, mortgages, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities are: (If there are none, so state.)

None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required by the act of June 11, 1960, to be included in all statements regardless of frequency of issue.) 70998.

JIM AUXIER, Editor  
Sworn to and subscribed before me this 21st day of September, 1961.

[SEAL] J. E. WEAVER  
Notary Public in and for the County of Los Angeles, State of California  
(My commission expires 6 April, 1963)



**DIVING**  
can pay you  
**BIG profits!**

Learn professional diving skills this fall and winter... home study course prepared by master diver. Step by step instruction in all skills and techniques of skin and SCUBA diving is given each student in this course. E. R. Cross, nationally famed diver, guides your development! til you too are qualified for the high earnings offered to leading professionals in this exciting field.

FOR FULL INFORMATION on this complete home study course, SEND card or letter with your name, age, and address to

**DIVEMASTER**


Dept. SD 111, P. O. Box 3158, Madison 4, Wis.

**UNDERWATER MOVIES**

FOR JUST \$49.50

enclose your Kodak Brownie in rugged aluminum I-H case. Easy-to-operate controls. Send for free brochure.

**INNER HARBOR CO., Box 20, Manchester, Mass.**




**SKIN DIVERS SHARK SPEAR**  
THE FINEST FOR PROFESSIONAL OR AMATEUR  
Non-Rust, Copper Coated Solid Steel, 9 1/2" Long  
J. JACOB SHANNON, 220 N. 22nd St., Phila., Pa.  
Oldest Equipment House in Philadelphia


is your life worth 15.95??

Most likely, yes. Especially if you've made an emergency landing in a desolate area and are in desperate need of help. Spend 15.95 for the MAYDAY ROCKET FLARE Kit and insure your chances of being rescued. The MAYDAY Kit is small and light—9 thumb-size flares and one-size flare gun in a plastic box weigh only 5 oz. Flares load rapidly, fire to 350 ft. altitude. Their penetrating brilliance can be seen over long distances. MAYDAY Flares are waterproof and can be used under the worst weather conditions. In addition, they are safe to use in dry forest areas as there is no danger of fall-out to ignite and start fires. MAYDAY Flares are manufactured to EXCEED rigid Coast Guard requirements. Extra flares, red, green, or white, packed in plastic tubes are available, 3 for 2.95, shipped prepaid if ordered with MAYDAY ROCKET FLARE Kit.

P.S.—Human nature being what it is, we've packaged the MAYDAY Kit (flare gun and 3 flares) for those people whose lives are not worth 15.95 but at least 9.95 (prepaid, that is). Fully guaranteed or money back.

• Calif. residents please add 4% sales tax. No COD's please.

• Dealer inquiries invited.



**E. E. LOHN COMPANY**  
308 EAST BEACH AVE • INGLEWOOD, CALIF.

**3/16" HEAVY DUTY WETSUIT**

**49.95**

**COMPLETE READY TO WEAR FULLY GUARANTEED**

PLEASE SEND CATALOG

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

**PHANTOM PRODUCTIONS**  
1441 E. Bayshore Rd. — East Palo Alto, Calif.





## Skin Diving Charter Boats Resorts-Tours

### EXPERIENCED DIVERS ONLY

—NOW FOR THE FIRST TIME—  
JOIN WEEKLY DIVING CRUISES IN THE

## VIRGIN ISLANDS

ABOARD THE FAMOUS DIVING VESSEL

### "GOOD HOPE"

(Goede Verwachting)

Accommodates six guests—Good food

Fully equipped with tanks, regulators, masks, fins, leads, underwater metal detector, compressors to 7000 lb. per sq. in., underwater lights, decompression platform, water pumps, hoisting gear, sand lift, 16 mm underwater electric film camera, Leica with underwater case, etc. etc.

only \$150.00 per person

ALL INCLUSIVE

(Private charter also available.)

Write Airmail To

Yacht "GOOD HOPE", Box 2147, St. Thomas, V. I.

### EXPEDITION AROUND THE WORLD

French family on two year expedition around the world will accept four paying guests on comfortable 60-ton yawl "Saint Yves-d'Amor." Entire voyage or fraction.

### LE SERREC

Box 981

JACKSONVILLE, FLA.

Overnite 2 Days at

## CATALINA

\$16<sup>95</sup>

per person,  
2 to a room

Saturday night  
\$1.50 per  
person  
additional

- Boat trip to Avalon
- Dinner
- Choice Rm. or Cottage
- Breakfast
- Lunch
- Boat trip return

Make reservation now: HO 9-2111  
or write:

6414 Sunset Blvd., Los Angeles 28, Calif.

## RENT 1962 Chris-Crafts Cruise Bahamas—Keys—Florida

TWIN ENGINES • FULLY EQUIPPED  
LIVE ABOARD

SELF-DRIVE!  
WORLD'S LARGEST  
BRAND NEW FLEET  
26' THRU 37'  
FREE INSTRUCTIONS

LOW AS  
\$19500 WK.  
(4 and 6 SLEEPERS)  
LESS IN SUMMER

Write or Phone for Brochure

## COMMANDER YACHT RENTALS

Bahia Mar Yacht Center, Ft. Lauderdale, Fla.  
JA 4-6274

## ABACO UNDERWATER TOURS

Seven full days diving in crystal clear Bahamas waters. Ideal for skin and scuba diving, photography, exploring. Sleep ashore or aboard. Air, equipment, meals, lodging, boat, and guide. \$175 covers ALL! For reservations and further details, write:

BOB WILLIAMS

12250 S.W. 190 Terr. CE 5-3088 Miami 57, Fla.

### CORAL REEF RESORT

in the fabulous FLORIDA KEYS—best for beginner or expert divers. Ocean front efficiencies, cottages, rooms—all air conditioned. Dock, sand beach, boat ramp, deep channel direct to coral reefs, Spanish wrecks, famous Alligator Reef. Clearest water for photographers. Air available, instructor and guide on reservation, practice basin.

P. O. Box 575

Islamorada, Florida

### 43 ft. Diesel SKIN DIVING BOAT "CHALLENGER"

Closed Charter or Open Trips to  
CATALINA

Channel and Outer Islands—Mexico  
Air Comp.—Galley—Bunks—SS—DF—DR  
Oper. from Norm's Landing, San Pedro, Calif.

PHONE: TE 1-3444

OR WRITE: Capt. Mac, 3079 Elberan,  
San Pedro, California



### JOIN CARIBBEAN CRUISE

Sail aboard 151-ft. schooner  
POLYNESIA to best reefs and  
wrecks in Bahamas. Visibility in  
gin-clear waters up to 100 feet!  
10 DAYS OF ADVENTURE—\$150  
(Special Rates to Groups)

WINDJAMMER CRUISES, Inc.  
P. O. Box 1051-SD  
Miami Beach 39, Fla., JE 2-3407

### BAHAMAS

Skin diving cruise aboard 84 ft. schooner "Gulliver." Special rates for groups of 12 or individual reservations \$180 for 6 days all inclusive. Free air. No extras. Write Air Mail (10c stamp)

### BAHAMAS CRUISING CLUB

POB 22 Nassau Bahamas

### BRITISH HONDURAS

Dive on the world's second largest barrier reef.  
Big Fish—Wrecks—Clear Water—Unspoiled Diving.

MEALS & LODGING, AIR, TANKS, WEIGHT BELTS  
AND BOATS—ALL FOR \$15 A DAY.

### SKIN DIVERS INTERNATIONAL

HY 4-7154 / P. O. Box 577 / Loguna Beach, Calif.

### FLORIDA KEYS

World's Clearest Waters.  
Headquarters for Skin Divers.

Over 2000 varieties of fish, beautiful coral formations, modern cottages, sandy beach, motors, free fiberglass boats. Send for brochure and rates

### THE SANDY BEACH & COTTAGES

Box 206C Islamorada, Florida

### SKIN DIVING HAWAII

INSTRUCTIONS CHARTERS EQUIPMENT  
Sales and Rentals

Distributor for Sportsways

Write: DON JOHNSON

1651 Ala Moana Blvd., Honolulu 15, Hawaii  
Phone 992521

The Best Biggest (110 ft.), Safest, Especially-Equipped Diving Vessel Afloat.  
WE CATER TO ALL YOUR NEEDS AND WANTS:  
Fine food, free air, diving platform, 5 minute compressor, spacious deck and lounge area, bunks for 20.

SEVEN DAYS of the best diving..... \$120.00  
ANYWHERE IN THE BAHAMAS OR CARIBBEAN

### LEEWARD CRUISES

19601 NW 8th Ave., Miami 69, Fla., NA 1-3838

## INDEX OF ADVERTISERS

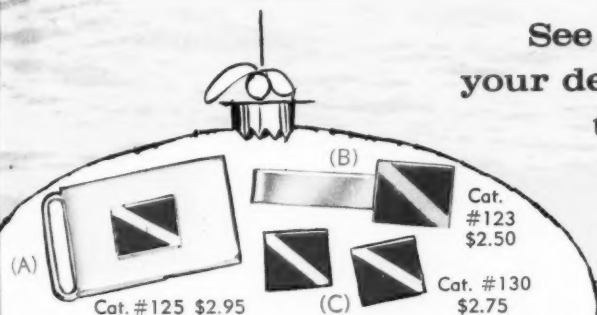
NOVEMBER 1961

Serving over 950 clubs—7 million divers!  
Write directly to these advertisers for prices  
and further information.

ABACO	64
Alginier Industries	60
All American Scuba	62
American Rolex Watch Corp.	13
Aqua Craft	6
Aqua Explorations	58
Aqua Sport Divers	15
Bahamas Cruising Club	64
Bayley Suit	16
Beachcomber Products	62
Bohemian Surf Equipment Mfg. Co.	60
Burdett Oxygen Co.	62
Capt. Mac	64
Catalina Divers Supply	61
Central Skin Divers	3
Coastal School of Diving	8
Commander Yacht Rentals	64
Coral Reef Resort	64
Dacor Corporation	11
Demone Mfg. Corp.	17
Dive-master	63
Dive 'n' Surf	51
Dive-Rite	14
Divers Dan	10
Divers Locker	57
Divers Training Academy	6
Eastern Emblem Supply Co.	62
Ebbtide Enterprises	58
Eterna Watch Co.	2
Gym 'n' Swim	63
Harbor Beach Tackle & Marine	15
Harbor Specialty Co.	62
Healthways, Inc.	Back Cover
Hollywood Reservations Co.	64
Inner Harbor Mfg. Co.	63
June Sportswear Co.	63
Keene Engineering Co.	57
Leeward Cruises	64
Le Serrec	64
E. E. Lohn Company	63
McWhorter Engineering Co.	16
Leonard Maggiore	63
Marine Research Publishing Co.	15
The Martin Company	58
Mel's Aqua Shop	58
Nor-Cal	59
Normalair, Ltd.	53
The Nugget Farm	59
Parkway Fabricators	9
Phantom Productions	63
Phill's	61
Powermite Drill & Tool Company	59
Raymond Development Co.	62, 63
Richards Aqualung Center	51
Rogers Emblem Mfg. Co.	16
Rose Aviation, Inc.	6
Sandy Beach and Cottages	64
Seacraft Industries	Inside Back Cover
Seahawk Products	58
Seahorse Products	60
Seamless Rubber Co.	Inside Front Cover, 1
Sea-Well Corporation	61
Seven Seas Wet Suits	6
J. Jacob Shannon	63
The Shell Divers	63
Shell's	62
Ski 'n' Dive	14
Skin Divers International	64
Skin Divers International (San Diego)	15
Skin Diving Hawaii	64
Sportsways, Inc.	5
Stark's Aquatics Co.	62
Undersea Divers Supply	51
Underwater Sports, Inc.	60
Underwater Sports Shop	62
U. S. Divers Co.	7
D. Van Nstrand Co.	16
Vantage Press	51
Wessman Manufacturing Co.	16
Windjammer Cruises, Inc.	64
Yacht "Good Hope"	64

# An Ocean of Gifts!

See your favorite SEACRAFT gifts at your dealer, or use the handy coupon to order yours now.



(A) Cat. #125 \$2.95 (B) Cat. #123 \$2.50 (C) Cat. #130 \$2.75

**MATCHING MEN'S ACCESSORIES**  
 (A) BELT BUCKLE with diver's flag insignia in red enamel. Rhodium finish. (B) TIE CLIP a beautiful diver's flag clip that identifies the sport. (C) CUFF LINKS. Expensive rhodium finish links that are durable and lasting.



**WOMAN'S LIGHTER**  
 Cat. #122 \$2.95  
 Dependable automatic lighter works in howling wind. Rugged and compact. Stainless steel finish with diver's flag insignia.

**MAN'S LIGHTER**  
 Cat. #121 \$2.95  
 Beautiful stainless steel lighter with diver's flag insignia in enamel. Wind-proof flame guard.

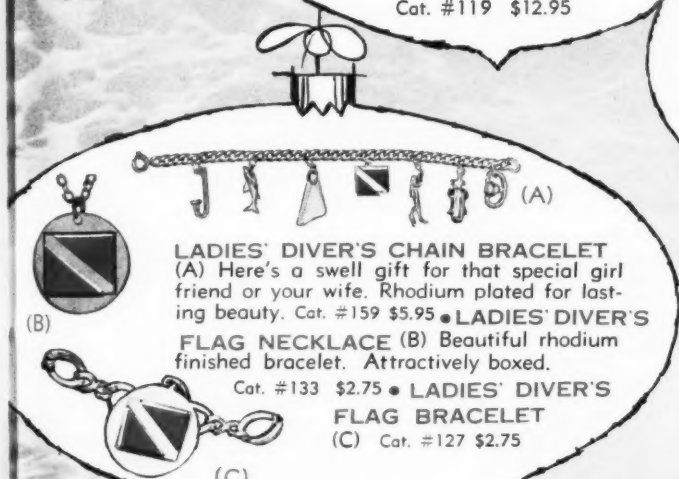


**DIVER'S DESK SET**  
 Cat. #119 \$12.95  
 SCUBA diver in chrome finish mounted on solid walnut base. Leak-proof pen, solid brass pressure sensitive plate ready for engraving by your local jeweler.



**DIVER'S TANKARD**  
 Cat. #118 \$2.95  
 For your den, bar, or conversation shelf. 5" high decorated with exciting underwater scene in full color.

**DIVER'S EMBLEM**  
 Cat. #57 \$2.95  
 Chrome luster, baked enamel finish. Easily attaches to fender or trunk. Bracket for number plate. Double backed tape for smooth surface.



**LADIES' DIVER'S CHAIN BRACELET**  
 (A) Here's a swell gift for that special girl friend or your wife. Rhodium plated for lasting beauty. Cat. #159 \$5.95 • **LADIES' DIVER'S FLAG NECKLACE** (B) Beautiful rhodium finished bracelet. Attractively boxed. Cat. #133 \$2.75 • **LADIES' DIVER'S FLAG BRACELET** (C) Cat. #127 \$2.75

SEACRAFT INDUSTRIES, INC. WILMINGTON, MASS.

Rush me item number(s): \_\_\_\_\_

Enclosed is my money order or check for \$ \_\_\_\_\_

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

**Seacraft** INDUSTRIES, INC.  
 Wilmington, Mass.



**\$40.00 more for a Gold Label ???**



OF COURSE NOT! It's for the newest advancement in underwater safety . . . the SCUBAIR "300" with Sonic Reserve Warning. As soon as the air in the tank has been depleted to the safe reserve level of 300 pounds per square inch,\* a clearly audible sonic alarm alerts the diver that the air in his tank has reached the minimum safety level. From this point on, until all the air has been exhausted, the alarm device continues to operate; reminding the diver continuously that he is breathing reserve air. With the SCUBAIR "300" there is no possibility of forgetting this very important life-saving fact. The sonic alarm device is an integral part of the SCUBAIR "300." First and second stages of the SCUBA-STAR, SCUBAIR and SCUBAIR "300" are the most efficient ever engineered. HEALTHWAYS 1961 regulators are the most reliable — so reliable, that they are unconditionally guaranteed for 24 MONTHS.



\*Approximately the same as in air — standard air reserve at 3000 feet. The actual reserve level will vary with the weight of the diver and the depth of the dive.



